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Madras Information

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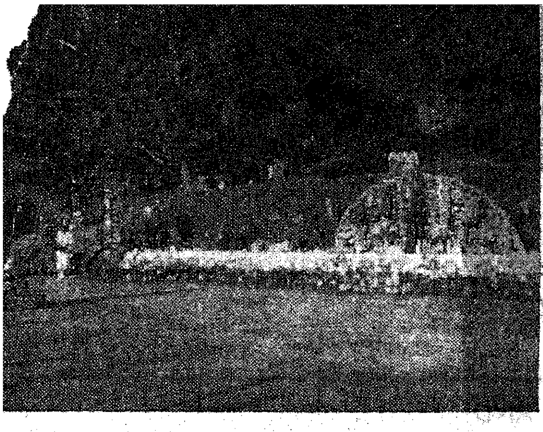
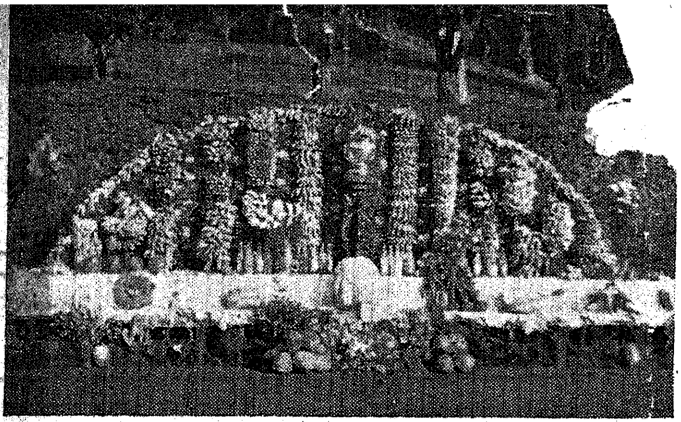
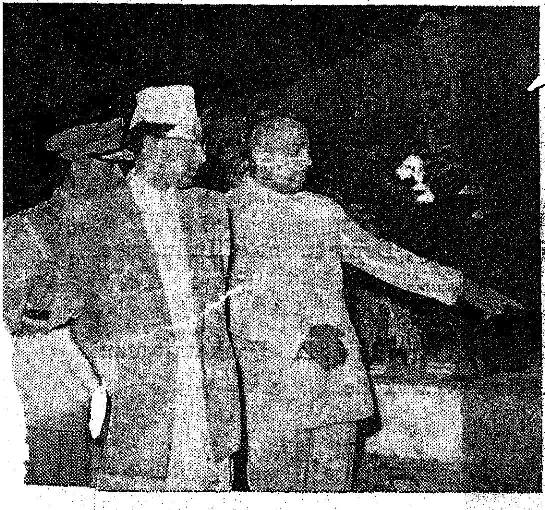


A general view of the exhibition.



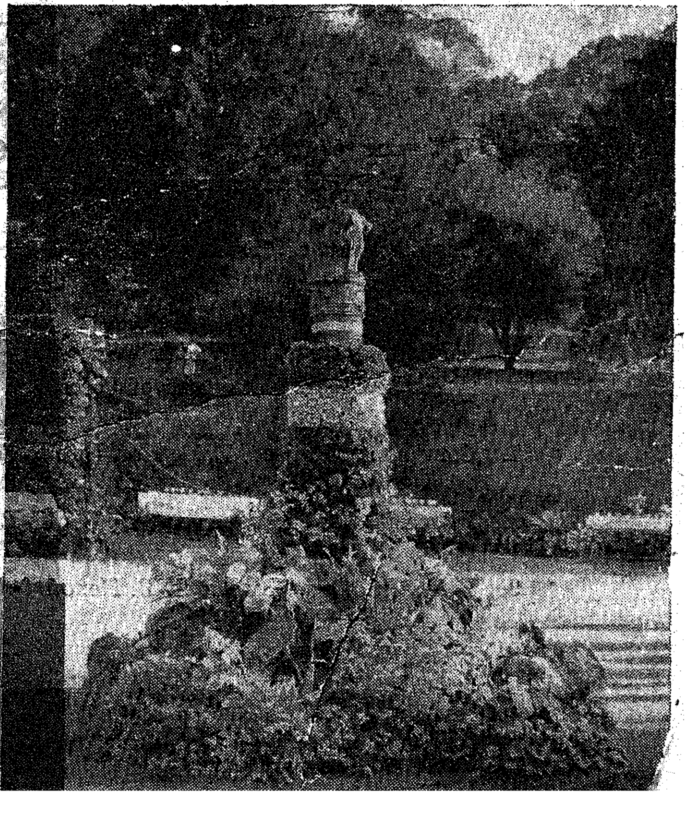
A display of banana wealth of South India in an artistic way.



Hq. D.D. (R), with His Majesty the King of Nepal, e exhibits of fruits and vegetables displayed at oonoor.

The visit of His Majesty the King of Nepal to the Agricultural Exhibition.

When His Majesty the King of Nepal visited our State recently and was in the Nilgiris, he paid a hurried visit to the exhibition arranged by the State Agricultural Department. It was a picturesque display of the seasonal fruits, vegetables and flowers. His Majesty and party were specially attracted by the tropical fruit wealth of this part of the country and appreciated the samples of mangosteen fruits and passion fruit squash which they relished with great pleasure.



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A Day in Mudumalai Wild Life Sanctuary

By SRI M. A. BADSHAH, Personal Assistant to the Chief Conservator of Forests, Madras.

On Sunday the 19th November 1955, left Ooty at 8-30 a.m. with pack ...ch and arrived at the Mudumalai ...ld Life Sanctuary at 10-15 a.m. ...h the object of spending the day, ... and photograph Wild Life, ...ver-thrilling experience even to Forest Officer.

...his Sanctuary extending over an ... of about 120 square miles is situ- ... at a distance of 42 miles from ...acamund along the black-topped ... maintained Ooty-Mysore road. ... drive to the Sanctuary from ...camund is very pleasant besides ...larating as it commands a number ... magnificent views commencing ... the world famous Wenlock Downs ...d with shola forests and ending ... several enchanting Valley views ...e Gudalur Ghat Section.

...e Forest Rest House in the ...tuary at Kargudi stands on a ...k overlooking a major portion of ...Sanctuary and is approachable by ... It is well furnished and a small ...een in charge of the Watcher- ...-cook is attached to it. There is ...isk of any visitor being stranded ...want of crockery, bedding or food. ...ed food is always available and a ...nably good lunch or dinner can ...d at short notice.

Enthusiasm Chilled

... arrival at the Sanctuary, my ...siam was appreciably chilled when ... told that wild animals could be ... only between 5 a.m. and 9 a.m. ...gain between 4 p.m. and 6-30 p.m. ...uring the midday they normally ... in deep Forest Glades both from ...eat of the sun and their natural ...ies. This news came to me as ... from the blue.

...as not prepared for this emer- ...as I had programmed to return ...acamund before ... the same day. Raman Nair, the Game Ranger, suggested that I may take some rest and have my lunch and commence perambulation at about 3 p.m. when the afternoon feeding session of the animals would commence. I became impatient. Wasting four solid hours to suit to the timings of the animals was out of question. I did not go all the way to take rest. I was looking forward to enjoy every minute of my stay in the Sanctuary as nothing fascinates or amuses me more than Wild Life. In sheer despair I sat on the easy chair but soon started twisting and turning; restless to go out and try my luck despite the advice of the local pundits. At about 11 a.m. I jumped into the jeep and summoned the driver to take me along the Mudumalai-Benne Road. Raman Nair came with me. We motored five miles along this road but we could see nothing. Then we took the branch road to Kakkanhalla.

Bisons' Greeting

The jeep was going fast as the driver was quite certain that no Wild Life would be visible at the time as he also professed to know something about the habits of animals having been on this road with some other visitors previously. But determination and love seldom fail to evoke a response. I had not gone far from the junction of this branch road when a massive solitary bison greeted me. I saw its huge head sticking out of the tall elephant grass close to the road. The jet black head with pale horns appeared to me like the moon coming out of the clouds. In a moment of excitement having seen the unexpected, I pulled the driver by his collar to stop the jeep. He suddenly applied the breaks and the jeep came to a sudden halt with a thud. This made the bison suspicious and it just disappeared with a most graceful leap into the tall elephant grass ...

Bison peeped through ... gosha lady

A Gosha Lady ...

I got down from the je... ed the bison on foot wi... well set, breathlessly ... reappearance. The g... than me and I am a six... the bison was hiding ... rustling of the eleph... proceed further tha... The bison was curio... intruder in its do... curious too. So... through the tre... seeing unseen... intruder had ... by shooting ... After bidding ... thanking he... at such an ... surprise of ... par... hi...

ɲn faced in America less tha a tury ago when it had almost reached stage of extermination. Thanks the efforts of the National Bison ciety which created sanctuaries for is magnificient animal, the bison is ell on its way to rehabilitation.

Langur's Acrobatics

ɔoon I landed at another delightful ɩt. I was startled by the sound of ɛaking branches and swinging of e tops. I looked up and found a ɔupe of Langurs (Hanuman Mon-s) bounding through the trees with ous " whoop ". I was not satis- looking at them from a ance. I went close to them full curiosity to watch their reaction but ey would not stay. As I went wards them they started retreating ɔm tree top to tree top. Their arvellous leaps beggar description. arely one comes across Langurs of stupendous size met in this San-ary. Each weighs easily about 50 0 pounds. The greyish white fur with black faces and long tails are characteristic of this species. human semblance is very marked em. It was interesting to watch acrobatics, their balancing on the mities of the branches, their y, their leaps and bounds from to tree. The tail helps them to ce their body ; hitched on the b s an additional support. oked at them the more innocent creatures who n his campaign against did they help me ? I It is not strange, I he monkey glands when e human system should ers in rejuvenation.

ter Holes

abling Raman Nair ould visit the two dusullah and per-me across some adily agreed. I excitement I aching these alking breath-nner possible rass expect-ment. In gle Bush- my iar ils s-main unseen while stalking game. It is evident that Nature does not tolerate sly and cunning ways in its midst. However I reached the water hole in a down-hearted manner. There was no trace of any animal except the foot prints of elephants, sambhar, bisons and deer. The water holes are most beautifully situated completely hidden from the view surrounded by tall trees and the gaps filled up by shrubs and elephant grass. It appeared to me that human beings are not to defile this place which Mother Nature has so ingenuously constructed to allow its darlings to drink water in peace.

Hide and Seek with Deputationists

At about 2 p.m. while returning to the Forest Rest House, I had another thrill. A deputation of spotted deer led by a stalwart stag in velvet and followed by a few fawns was waiting, as it were to see me, just near the abandoned Military water tank below the bungalow. They stared at me and I stared at them. I counted as many as 30 heads. Human nature being exacting, I tried to go near them my heart throbbing to pat them. They were no doubt accustomed to the sights of men but certainly not so tame as to allow this liberty. As I approached them, they concealed themselves behind the bushes. myself against a tree to kid ther believing that I had gone. They out of the bushes after a while. played this game of hide and see some time and then I departed le these creatures of unsurpassed be the companions of God Madhav peace. Very few animals are as gr ful and colourful as the spotted God Almighty must have taken v great pains and interest in mal its coat. Its rufous faun colour v a dark strip running down the sp with bright rows of white spots all c the body to harmonize with the bro flecks of light and shade of sun-sl filtering through the leaves, a cam flage which God has created fo protection, is something amazing

Malabar Squirrels

Next to appear on the scene b I reached the Rest House was a of Malabar Squirrels busy on a tree. This beautiful animal much in demand for making fur c for European ladies in the olden c Its meat is also greatly rel and as it was on the verge of ex tion for these two reasons, it was lared a protected animal some years ago. The prohibition im on the shooting of Malabar Sq

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Industrial Development

By Sri C. G. REDDI, Secretary, Department of Industries, Labour and Co-operation.

The schemes now taken by the Department of Industries and Commerce, Madras, in the First Five-Year Plan were under the following major heads :—

1 Industries.

2 Cottage Industries.

3 Agriculture—Minor Irrigation.

In the Second Five-Year Plan, schemes have been proposed under more major heads like—

1 Medium Industries.

2 Small scale Industries.

3 Cottage Industries and Handi. crafts.

4 Sericulture.

5 Handloom Industry.

6 Technical Education.

7 Agriculture—Minor Irrigation.

The type of schemes that were taken up under each major head and the progress achieved in the First Five-Year Plan and the type of schemes proposed for the Second Five-Year Plan and objectives thereof are briefly as follows :—

Industries.

The schemes taken up in the First Five-Year Plan under Industries are mostly of developmental nature, emphasis being laid on the development of the activities of the Department through new schemes as well as through the expansion of the existing activities of the Department in the various branches like Reorganization, Training, Research, Marketing, etc.

Reorganization.—The District set up of the Department of Industries and Commerce, Madras, originally consisted of only two Assistant Industrial Engineers, their Headquarters being at Tanjore and Coimbatore and five District Industries Officers with their Headquarters at Tirunelveli, Madurai, Madras, Vellore and Kozhikode. These officers were assigned with the work of giving assistance to Industries in general and concentrating on the development of various Industries and the Assistant Industrial Engineers, were entrusted with the work relating to pumping and boring operations in their regions. As the Engineering activities of the Department were on a constant increase, the Assistant Industrial Engineers were finding it difficult to exercise proper supervision and control over the vast area and the District Industries Officers could not be of much assistance in the Engineering activities of the Department as most of them did not possess technical qualifications. In the circumstances it was planned to reorganize the District set up of the Department by abolishing the posts of Assistant Industrial Engineers and the District Industries Officers and to appoint in thei seven Assistant Directors of In and Commerce with technical fications at the rate of one A Director for every two Accordingly all the seven A Directors have been appoi they are able to exercise supervision and control in r both development of Indust Engineering activities of this ment.

Training.—Originally the ment of Industries and Comm running Government Industria with a few certificate and Courses in each school at Madurai, Mangalore and K As the demand for technic personnel was found to be these Government Industria were not found adequate t the needs of Industrial and

Shri Sri Prakasa, Governor in Uzbek National dress at the party giv Uzbek Cultural Delegati... State Committee on 13th Janua

of the various districts in e. Therefore with a view to e problem of the increasing for technical education, it was to establish five polytechnics ial basis for providing training number of certificate and Courses. All the five poly- have been opened each one lras, Madurai, Coimbatore, te and Kozhikode. These poly- provided instructions in more Diploma Courses and 33 certificate courses and the for technical education has preciably met. In fact these pics have proved an asset to te in providing instructions ological courses and the rush ission to these polytechnics more than the maximum

r the Department has had an ial institution known as the Trade Institute where ins- on a modest scale was provided r tanning and leather goods ure to the Artisans. The the development of the acti- this Institute was keenly felt rdingly in the First Five-Year e Institute was reorganized ped with its name changed stitute of Leather Technology new courses, viz., Diploma Leather Technology of three ation and a certificate course goods manufacture of three e introduced. The Insti- its development has been ply trained personnel to the d Leather Goods Manufac- ry and also solve research tanning industry.

ew to produce more skilled o be absorbed in the well nch of the Department a e was taken up under which ndidates were selected and s Drillers and Assistant

—With a view to enabling Industrialists and Govern- rtments to have qualified the analysis of minerals raw materials available in for which there were no ailable in Madras, it was d to establish a Govern- ored organization in the Year Plan. Accordingly n known as the Chemical Analytical Laboratory The Laboratory is rendering very useful service by testing samples and by contributing articles of scientific interest to important journals.

Marketing.—In order to augment the marketing side of the Department, it was planned to effect improvements wherever necessary to the existing commercial concerns run by the Department and the following steps were taken in this direction :—

(*a*) The Government Industrial Engineering Workshop was provided with up-to-date machinery with the result that the turn over of the Work- shop has been increased and it has been able to manufacture Rs. 32,000 worth of boring tools, a year.

(*b*) Similarly, at the Government Kerala Soap Institute, Kozhikode, certain equipment which had become obsolete and unserviceable by long use were replaced by new and modern ones and this replacement is expected to bring about considerable improve- ment in the quality of soap manufac- tured at the Institute.

(*c*) The Department has had an experimental section at Coonoor for the manufacture of silk worm guts on a small scale. This experimental section was converted into a manufacturing concern so that guts of various varieties may be produced and mar- keted to Indian Medical Directorate and also to the public and the country's demand for surgical guts be met by this concern. The section is able to produce nearly four lakhs of guts a year and the production is expected to increase further in the years to come.

(*d*) The Government Silk Filatures, Kollegal, was originally producing only raw silk which was being sold to the dealers and consumers. The consu- mers who purchased raw silk had to incur further expenditure in twisting the silk and converting it into warp before it was put at the looms. With a view to convert the raw silk into warp at the Government Silk Filatures itself, a few modern silk twisting and winding machines were purchased and installed at the Filatures. With the installa- tion of these plants the Filature has been able to produce about 30,000 lb. of thrown silk a year and it is made available to the Handloom Industry at fair prices.

Further, in addition to improving the existing commercial concerns of the Department, it was also proposed to establish a new commercial concern for the manufacture of vegetable ghee and also to provide facilities for training of students and technical personnel in oil technology. With this end in view a factory was esta- blished with its name as the Govern ment Hydrogenation Factory at Kozhikode with new buildings and equipment. The plant installed at the factory is of the capacity of 15 tons of refined oil and 10 tons of Vanaspathi per day. The factory has taken a trial run and is at present engaged in refining oil for the Govern- ment Oil Factory, Kozhikode, but it has not yet gone into commercial production since in view of the diffi- culties the Vanaspathi factories are facing at present in the production side the prospects of the factory work- ing on profit, or at least without incurring any loss, are remote and the Government are considering the question of leasing it out on reasonable terms.

The Second Five-Year Plan has been so prepared as to provide under head of Medium Industries setting up of plants for the production of aluminium, iron, alloy, steels, steel forgings and castings, electrical goods, sulphuric acid, writing and printing paper, D.D.T., porcelain and sanitary ware, power alcohol, sawing and seasoning of timber, etc., and also to extend financial assis- tance to the private sector in the deve- lopment of various industries. Out of these schemes the Planning Com- mission for the time being have agreed to approve of two schemes, viz., (1) to set up timber seasoning plants and saw mills and (2) to extend financial assistance to the private sector for setting up of co-operative sugar factories.

So far as the remaining schemes are concerned some of them are being considered by the Planning Commission on an All-India basis and in case of some of the schemes the Planning Commission is examining as to how best they could be implemented by the private sector.

Small-scale Industries

In G.O. No. 1435, dated 21st April 1955, the Government constituted a committee to formulate schemes for village and small-scale industries for the Second Five-Year Plan period

recommendations of this Com-
›e have been largely incorporated
ıe plan. The plan lays special
ıasis on industries which will
ide employment to a large num-
of workers, the chief among
h are the leather and hand-made
:h industries. As regards the
ıer industry, the bulk of the exports
the Madras State at present are
he form of half-tanned leather
the extra income that could be
'ed by further processing and
ıing is lost to the State. With its
production of hides and skins,
› is very considerable scope in the
› for the development of the
ıer industry, and the Plan accor-
ly includes schemes for proper
ing and finishing of leather at
› centres and for the manufacture
'ot-wear at 26 centres, which will
attered all over the State.

atches.—The present production
ıand-made matches is 1·6 gross
›s per year providing employment
)0 to 1,000 persons for every five
ȝ gross. Schemes have been pre-
d under cottage industries for the
›lishment of 100 cottage type
:h industries, each producing 100
ȝ per day and providing employ-
t for about 50 persons. With a
to supply the raw materials to
› as well as for the existing match factories a scheme has been drawn up for the manufacture of splints and veneers.

Among the various dispersed industries, blacksmithy and carpentry, which cater to the basic needs of the people, have been selected for development. For blacksmithy and carpentry, four model production-*cum*-training units have been proposed with mobile units attached to each of them.

Other existing industries.—The other existing industries selected for development are : utensils, hand tools, etc., which are now being operated in groups in different places. In these cases, provision has been made for servicing centres for the supply of raw materials at reasonable rates, for undertaking operations requiring costly machinery and for introducing additional and new lines of manufacture.

New Industries.—The new industries proposed are for the manufacture of articles which are in great demand or imported from other places or are in short supply in this State. These industries include electrical goods, sports goods, pressed metal goods, hurricane lanterns, surgical instruments, manufacture of scientific glass apparatus, laboratory and scientific equipment, etc.

Industrial Estates.—It is proposed to set up two more industrial estates at two important centres besides the two proposed to be set up during the current year. The scheme provides not only for the erection of buildings and the provision of the amenities required, such as water-supply, electricity, etc., but also makes provision for affording facilities to purchase raw materials in bulk and supply them at reasonable rates to the individual units. Another scheme has also been drawn up for the acquisition and development of lands suitable for the location of small industries with a view to their assignment to small-scale industrialists. A sum of Rs. 70·55 lakhs has been set apart for the formation of industrial co-operatives in which the workers themselves would be members and would share in the profits. It is expected that 180 units would start working during the Five year period including units for the production of umbrella ribs, sewing machines, milk substitutes from groundnut, fruit canning, manufacture of shoe-lace, etc., Another sum of Rs. 200 lakhs has been provided for grant of loans under the State Aid (Industries) Act. It is also proposed to subsidize the cost of transmission lines and electricity charges in deserving cases. A provision of Rs. 75 lakhs has been made

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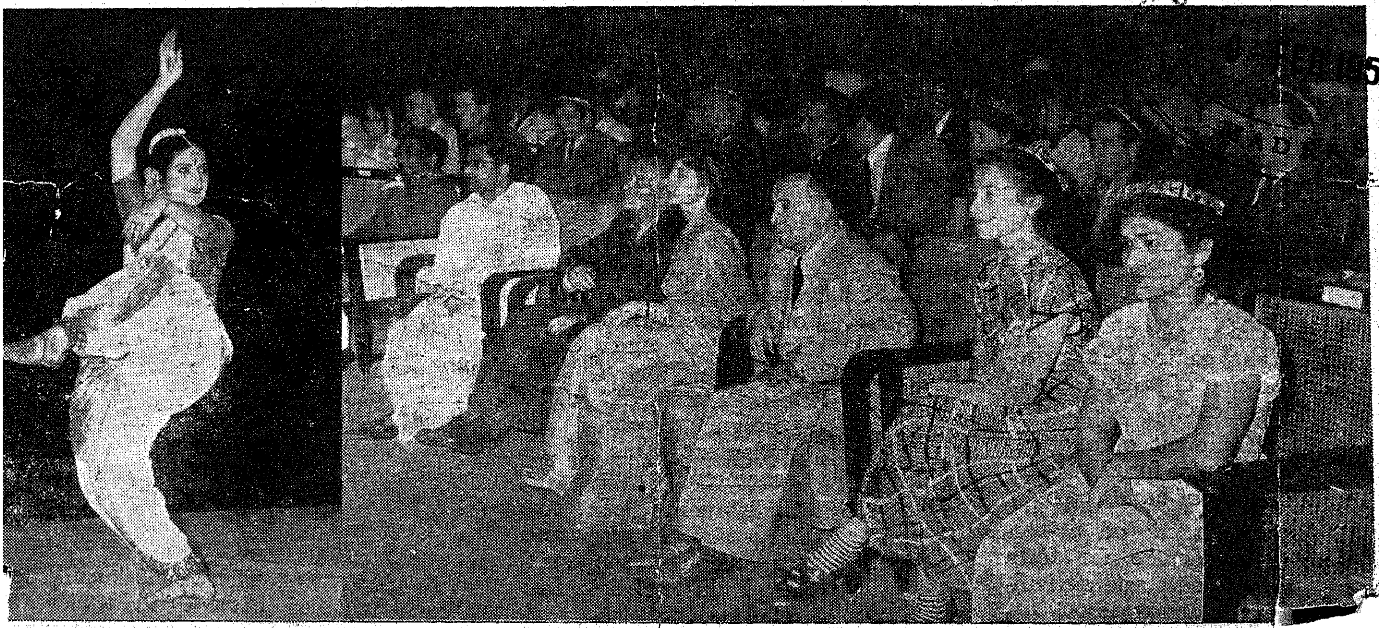


The members of the Uzbek Cultural Delegation watching with interest the Bharata Natyam performance given by Srimati Kamala Laxman.

for the supply of machines on hire-purchase system to small-scale industrialists.

Final List of Schemes proposed for inclusion in the Second Five-Year Plan under Small-scale Industries.

Serial number and name of the Scheme.	*Net cost.* RS.
1 Establishment of a production unit for splints and veneers required for hand made match industry.	4·26
2 Establishment of three service centres for tanning, finishing and construction of cold storage rooms for preserving the skins and raw hides.	15·00
3 Establishment of 25 training-*cum*-production units for training 12 artisans in each unit for the manufacture of foot-wear both Indian and Western types using manually operated machine.	25·50
4 Establishment of one production centre for the manufacture of both India and Western types of foot-wear using power operated machine.	4·00
5 Establishment of two model combined carpentry and blacksmithy workshops with mobile units attached to them.	7·76
6 Establishment of two service centres for the utilization of timber rejected in the forests.	5·04
7 Establishment of a service centre for the production of Textile Mills parts.	5·00
8 Establishment of one servicing centre for the production of pressed metal products.	6·50
9 Establishment of one service centre for the manufacture of hand tools.	7·00
10 Establishment of a servicing centre for farm implements and agricultural machinaries.	4·94
...ablishment of a servi-ng centre for hurricane lanterns.	3·90
12 Establishment of two service centres for brassware industry.	16·00
13 Establishment of a service centre for the manufacture of surgical instruments.	6·50
14 Establishment of a service centre for electrical goods.	31·50
15 Establishment of a service centre for Laboratory and Scientific equipments.	6·90
16 Establishment of one service centre for sports goods.	5·46
17 Establishment of model scientific glass apparatus factory as an adjunct to the existing Government Glass Blowing centre.	5·60
18 Establishment of marketing corporation with five chain stores.	41·35
19 Establishment of a stores purchase section in the Office of the Director of Industries and Commerce, Madras.	5·00
20 Formation of Industrial Co-operatives.	70·55
21 Aid to Private Sector (Loans) under State Aid to Industries Act.	200·00
22 Subsidy over cost of transmission lines and on power rates to small scale industries and allotment of lands.	40·00
23 Supply of machines on hire purchase system to the small-scale Units of the Madras (Private Sector).	75·00
24 Organization of the Office of the State Director of Industries and Commerce.	10·30
25 Requirements of eight Foreign Experts to implement some of the schemes.	1·44
26 Establishment of two industrial Estates and Expansion of the existing Industrial Estate at Madras.	..
27 Establishment of three servicing corporations for the Industrial Estates.	..

Cottage Industries

The vital role which Cottage I... tries must play in the economic ... neration of our country canno... overstressed. The importance of t... industries not only from the poir... view of solving the tremendous ... employment and under employn... problem facing the country but ... from the necessity in the present ... text of concentrating on a form... economic activity that would by ... very organizational set up and inhe... distributive mechanism provide for ... disposal of purchasing power in as v... a circle as possible is being increasi... recognized.

The important Cottage Indust... of the State are: Handloom Co... Weaving, Handloom Silk Wea... Hand Spinning, Cocoon Rearing, ... Reeling, Handloom Wool We... (including manufacture of woolen ... blies, Rugs and Druggets), Ho... manufacture of Cotton Carpets, C... and Silk Yarn Dyeing, Dyeing ... printing of cloth, tanning of skins ... hides, matches, oil pressing, palm ... cane gur manufacture, ceramics in... ding pottery and clay modelling, ... and coir goods, palmyra fibre and p... leaf products, cane and bamboo w... metal ware including brass, alumi... and bell-metal, art metal work, ... including Korai, Palmyra and d... wood work, smithy, eucalyptus ... sandalwood oil, manufacture of ... and dolls, glass bangles and be... cigars, chewing tobacco, etc. The ... number of workers engaged in t... industries run into several lakhs ... the value of the products turned ou... several crores.

Different Cottage Industries— different aspects of cottage indus... are now being dealt with in diffe... departments. All work connected ... the organization and working of in... trial Co-operatives is being han... in the Co-operative Department. ... most important cottage industry d... with by the Co-operative Departn... is handloom weaving. The Dep... ments of Agriculture and Animal I... bandry are generally in charge of ... work relating to the Developmen... Bee-Keeping, Sheep breeding, dairy ... poultry farming, etc., and other a... industries. The promotion and ... ment of cottage industries ... women is one of the more in... activities of the Women's ... Departm... All other work ...

Cottage Industries is tested in the ›partment of Industries and Commerce with which rests the general sponsibility for the development of ıdustries in the State.

With a view to enlist the co-operation of all non-official elements interested in the development of Cottage Industries, a number of advisory boards and committees have been formed charged with the task of advising Government from time to time on the measures to be taken for the development of Cottage Industries in the State. The more important of such boards and committees are :—

1. *State Khadi and Village Industries Board.*—This State Board with the Minister for Rural Development as Chairman and the Director of Rural Welfare as Secretary is responsible for the development of Khadi and Village Industries in the State.

2. *State Handloom Committee.*—The Madras State Handloom Committee reconstituted in 1954 with the Director of Industries and Commerce as Chairman advises Government on all matters relating to the protection and development of the handloom industries in the State.

3. *Regional Advisory Boards for Cottage Industries.*—Regional Boards for the development of industries like matches, palmyrah fibre and leaf products and leather goods manufacture which have developed from local tradition, have been constituted with a view to stimulate intensive development of these industries in the regions where they are important and where there is scope for quick development.

The Director of Industries and Commerce, Madras is the President of each of these regional projects. A Technical Expert of the department, the Local Deputy Registrar of Co-operative Societies and representatives of the industry constitute the members of the Board.

4. *Joint Drugget Industry Advisory Board for Mysore and Madras.*—With a view to reviving the Drugget Industry which is one of the Dollar earning industries of this State and of Mysore, a Joint Drugget Industry Advisory Board has been constituted for Madras and Mysore. The Board is in general charge of the development of the drugget industry.

5. *State Coir Advisory Board.*—The Madras Government have constituted a Coir Advisory Board with the Director of Industries and Commerce as Chairman and the Superintendent, Government Coir Schools, Beypore as Secretary to advise them in regard to the development of coir industry in the State. Non-officials engaged in coir industry constitute the members of the board.

Training and Research have always been considered the chief responsibility of the Department of Industries and Commerce in the campaign for development of cottage industries. Courses in theory and practice of various cottage industries and basic trades like smithy, carpentry, handloom weaving, bleaching, dyeing and printing, light metal casting, leather goods manufacture, coir, soaps, wood work, glass bangles and beads, etc., are provided in the various industrial schools and institutes run by the Department. The period of training varies from 5 months to 3 years depending on the craft.

Research into the techniques, processes, appliances, etc., used in cottage industries has been undertaken in the Cottage Industries Research Institute of the Department of Industries and Commerce.

The financial resources of almost every cottage industry being slender and even too precarious, the need for financial assistance to the establishments engaged in cottage industries has long been realised in the State. Statutory provision has been made in this regard under the Madras State Aid to Industries Act. The Director of Industries and Commerce is empowered to grant a loan or subsidy not exceeding Rs. 500 to any cottage industrialist who desires to start or carry on any cottage industry which has an important bearing on the economic development of the country.

To promote the popularisation and speedy disposal of the products of the cottage industries, industrial and commercial museums were started during the period 1937–42 at several district headquarters, with a Central industrial museum in Madras. To ensure better functioning of the museums, a sales emporium was attached to each of them in 1947, where the sales of the products exhibited in the museums were organised. To facilitate better display and advertisement of products of cottage and small-scale indu… to bring the consumer in touch … production units, these museums we… subsequently reorganised and regional museums were set up at Tiruchirappalli, Madurai, Coimbatore and Kozhikode.

Industries in Rural Areas

The department has been paying special attention to the promotion and development of industries in rural areas. In order to revive and develop rural industries, particularly those which satisfy the basic needs of the villager, a comprehensive scheme for the development of rural industries in the firkas selected under the Firka Development Scheme was sanctioned in 1946. The primary object of the scheme was to train rapidly local workers in uptodate methods of manufacture of articles of daily use. Under the above scheme about 43 units were started and implements worth about Rs. 1·4 lakhs were purchased by Government. 326 artisans were trained of which 309 were given proficiency certificates. This was fo… lowed up in 1948 by another scheme which contemplated the starting of a number of production units by private agencies utilising the equipment and the services of the workers trained under previous scheme. Twenty-two of the Demonstration-*cum*-Training units started under the 1946 scheme were transferred to private management for being run as production units. Rs. 12,41… worth of tools, equipment and raw materials were sold to the newly starte… production units and Rs. 6,301 wort… of tools and raw materials were tra… ferred free of cost to a few deser… agencies. These production units … confined to the development of … industries, namely, blacksmithy, … work, sheet metal work, light … casting, pottery, tanning and le… goods manufacture.

The special committee appointed … the State Firka Development Board … 1947 pointed out that certain vill… industries like hand-pounding of … flour grinding, ghanny oil pressing wh… were indispensable for village econ… were decaying and that it was neces… to undertake their immedia… … A scheme designed to a … objective was sanctioned … implemented in selected co… of 50 villages one in each … scheme aimed at helpin… to produce their daily r…

...tion in their own villages, ... making the villages' self-sufficient ...onomic units. It provided for a free ...stribution of improved labour saving ...ols and implements worth rupees five ...khs in value to enterprising village ...tisans engaged in the village industries. ... also provided for the supply to the ...tisans at cost price raw materials such ... timber for carpentry, iron for smithy, ...l seeds for the village ghani, etc., ...timated at a total cost of rupees ...velve lakhs and envisaged the formation ... multi-purpose co-operative societies ... the villages for undertaking the ...rocurement and distribution of raw ...aterials to village artisans. Provision ...as also made for on the spot technical ...ssistance and guidance through tech...ical instructors under the general ...pervision and guidance of the District ...ndustries Officers.

In order to bring about an intensive ...evelopment of industries in rural areas ...e Government sanctioned in 1951 ...ir M. Visweswarayya's industrialisation ...cheme as an experimental measure in ...wo districts of the State. The scheme ...ims at the development of industries ... every part of the country with a view ... increase production and income ...y encouraging the growth of the spirit ...f self-help, initiative and ambition in ...he rural population by offering them ...pportunity to acquire higher operative ...nowledge, skill and practice in indus...ries. The special feature of the scheme ...that it tries to achieve the objective ...f rapid industrialisation of rural areas ...hrough the agency and active partici...ation of the peoples themselves at ...very stage from planning to execution.

In the Residuary Madras State the ...heme was tried in Musiri taluk of ...ruchirappalli district. Nearly fifty ...fferent industries were taken up for ...elopment in this area. The results ...ained so far are, on the whole en...uraging and it is proposed to extend ...e scheme to additional areas.

Ambar Charkas

...n intensive development of cottage ...ustries throughout the State is en...ged in the Second Five-Year Plan. ...nerous schemes have been proposed ...r this plan for the development of ...e industries like bee-keeping, pot...il pressing, manufacture of Khand...ugar, cotton ginning, groundnut ...cating, hand-pounding of rice, ...e hundred small units for making ... and twenty production-*cum* training units for the manufacture of fish nets, etc., are proposed to be started in the coastal and other backward areas of the State to provide subsidiary employment to fishermen, Harijans, etc., Twenty-six demonstration-*cum*-training centres for the development of village tanning and leather goods manufacture and allied industries like preparation of bone-meal, etc., are proposed to be set up throughout the State. These units will demonstrate the proper utilisation of carcass of animals, improved methods of tanning and of leather goods manufacture and preparation of bone-meal, etc., and training villagers in each of these industries. The staff will also visit the workers in their homes and assist them in improving the quality of the articles produced by them. Coir which is one of the important cottage industries of the State is proposed to be developed, intensively throughout the State on co-operative lines. Provision has been made for the manufacture of Ambar Charkas (which was originally designed in this State) and for supplying them on hire-purchase basis to spinners with a view to providing employment to a large number of people. Provision has also been made for the supply, on the hire-purchase system at subsidised rates of other improved tools and equipment such as reeling machines for silk, improved potters' wheel, etc. Village artisans will also be given assistance by way of supply of raw materials at cost price, free assignment of lands and grants for the putting up of work sheds or the conversion of part of their houses into workshops. As the success of all the steps taken for the development of cottage industries will depend mainly on the arrangements made for marketing the finished products, an efficient marketing organisation is proposed to be set up for the purpose. Besides carrying out market analysis and research and advising cottage workers on market trends and facilities, steps will be taken to ensure that as far as possible, production is organised against assured orders.

Certain handicrafts such as art metal wook, sculpture, mat-weaving, pith work, etc., which are now being practised at specialised centres have won all-India renown and it is proposed to open training servicing centre for these handicrafts with a view to giving the artisans training in improved methods so as to improve quality and reduce costs, supplying raw materials at reasonable prices, introducing new a... attractive designs, undertaking cert... processes of manufacture which t... individual artisan will not be able ... do efficiently at his workshop, provisi... of facilities for fine finishing and so o... The main difficulty now experienced i... marketing the products is proposed t... be met by creating a net work o... handicrafts emporia throughout the State and in major cities of India, with mobile vans attached, which will purchase the finished goods in the villages and producing centres and arrange t... market them at important tourists and pilgrim centres.

Sericulture

The schemes proposed for the Second Five-Year Plan under sericulture include the continuance of the existing scheme, viz., Gut manufacturing section, Coonor, to meet the requirements of the non-absorbable variety of silk-worm guts of the Indian Medical Directorate and also new schemes, viz., introduction of sericulture in Tenkasi in Tirunelveli district.

Establishment of a filature unit in Krishnagiri taluk to help the weavers in Salem district to get their requirements of silk for weaving and to enable the silk-worm rearers in Salem district to find a ready sale of their cocoons.

Training of requisite technical personnel for implementing the various sericultural schemes of the department under the Second Five-Year Plan and a tentative provision of Rs. 30·75 lakhs has been recommended to the Planning Commission.

Handlooms

A scheme with the object of increasing the production of handloom cloth and to provide employment for the weavers outside the co-operative fold at a total cost of Rs. 100·00 lakhs has been proposed in the Second Five-Year Plan.

Technical Education

As pointed out in the particulars of the schemes undertaken by this department in the First Five-Year Plan, five polytechnics were opened with new certificate and diploma courses and the Leather Trade Institute was expanded into an institute of Leather Technology with additional courses and better facilities for training.

(*Continued on page* 32)

9 - FEB 1958
MADRAS

Fisheries Technological Research in Madras State

By SRI R. VENKATARAMAN, M.SC., A.R.I.C., Superintendent, Fisheries Technological Station, Kozhikode.

The Fisheries Technological Station, Kozhikode, is in existence since 1945. The main activities of this important limb of the Fisheries Department are the technology of by-products such as fish meal, fish oils, fish manure, etc., research on the nutritive values of fresh and preserved fishes, research on the spoilage and preservation of fish, and research in standards for fresh and processed fish. The work done at Fisheries Technological Station is of direct applied value, to the fishing industry and with the help of the demonstration units spread all over the State the results of research are extended to the field.

A few achievements stand out among others, viz., work on fish meals, resulting in the erection of the first fish-meal plant in South East Asia, at Kozhikode. At first, work on the utilization of 'glut' fish and fish waste was carried out in the laboratory. Using whole fish, the yield of fish meal from various species was worked out. The results are given in Table I. The yield works out to nearly one-sixth the raw weight of ungutted fish. The next step was the determination of 'feed value' of these meals by analysis of various fish meals. The results are presented in Table II. Sharks and skates, which are considered 'ignoble' species yield the best meals followed by the ribbon fish. These fish meals are rich in proteins, calcium and phosphorus.

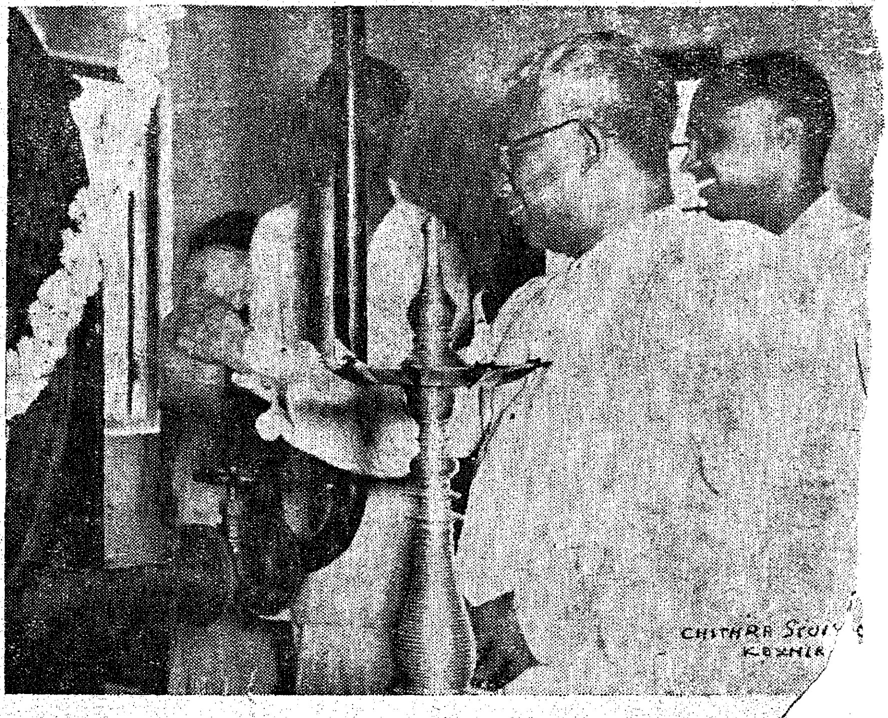
TABLE I.—*Percentage yield of fish meal from fresh fish.*

Number and name of fish.	*Yield.* PER CENT.
1 Mackerel	17·0
2 Soles	16·5
3 Horse mackerel	15·0
4 Anchovies	17·3
5 Ribbon fish	15·0
6 White bait	16·3
7 Oil sardine	16·0
8 Shark	16·3
9 Skates	20·0
10 Dolphin	17·5

TABLE II.—*Analytical values for different fish meals.*

Number and name of fish meal.	*Protein.*	*Fat.*	*Phosphorous (P_2O_5).*	*Calciu (Ca*
	PER CENT ON MOISTURE FREE BASIS.			
1 Mackerel	62·1	6·11	6·88	9·00
2 Sole	61·42	9·01	2·75	6·22
3 Horse maikerel	60·05	4·11	5·37	6·6
4 Anchovies	62·66	4·00	4·92	7·
5 Ribbon fish	72·21	6·55	3·78	5
6 White bait	68·25	8·34	4·03	[illegible]
7 Oil sardine	65·27	9·54	5·79	6
8 Shark	77·84	5·31	3·00	2
9 Skate	77·93	2·19	3·93	0
10 Dolphin	69·71	6·91	5·96	4·

From this it is clear that even such species like the dolphins (and porpoises) which are a menace to fishermen can be caught and converted to useful animal feed. From the laboratory stage the manufacture of fish meals pass to the demonstration stage. A ber of demonstration units were blished in the State but the prod was hardly sufficient to mee



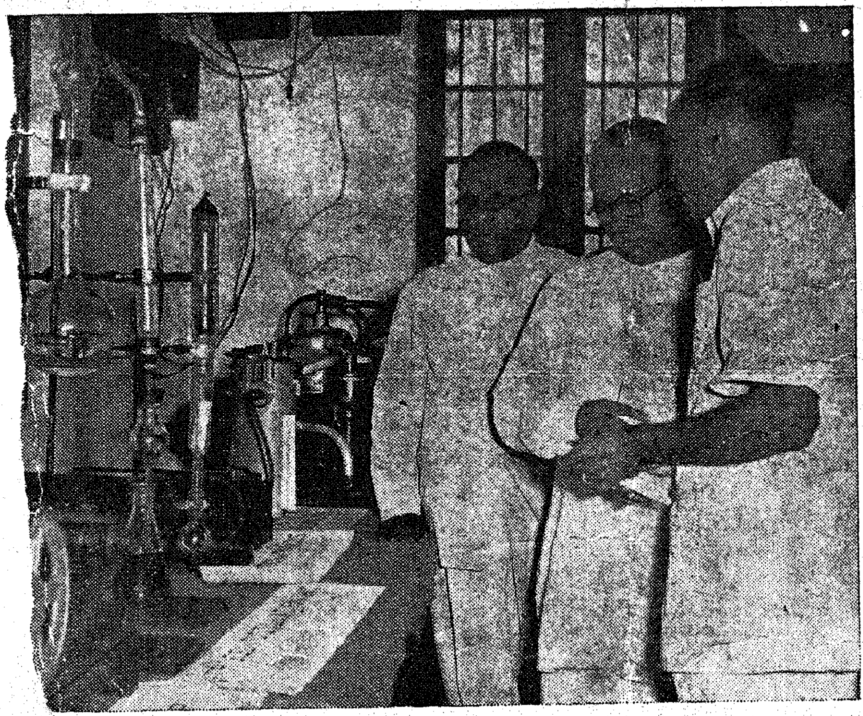
The Minister breaking coconut to mark the inauguration of the Fi

ʒ needs of Veterinary Institu-
nd Poultry and Cattle Farmers.
er it showed that the fishermen
lves could manufacture fish
on a cottage industry scale, thus
ing fish and obtaining additional
. But yet the demand for fish
for animal feeding is so tremen-
hat mechanized production is
eeded to augment production.
a small fish meal plant at a
about Rs. 25,000 was put up at
code by the Government.

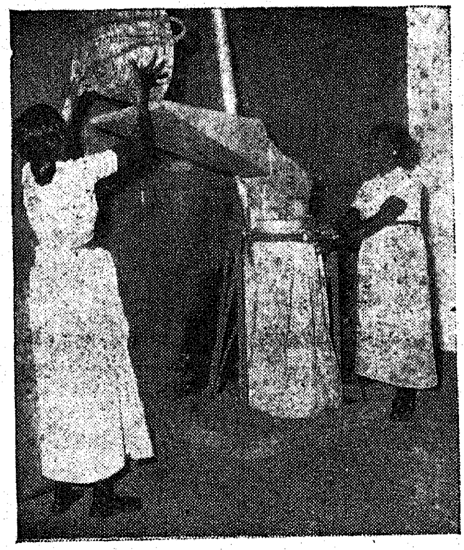
h Meal Plant—Salient features

consists of a vertical boiler to
e steam for "cooking" and
fish in the jacketed concen-
where the fish is continuously
up by a rotating shaft, resulting
ulsion of moisture. The mois-
nd volatile vapours pass on to a
sor where the obnoxious vapours
wn out and the "condensed
ubles" are retained. In a
ift of eight hours, this plant
dle 1,200 lb. of raw fish and
out 200 to 250 lb. of finished
The dried meal is powdered in
tegrator, passed through a fine
sieve and then packed in alka-
lined hessian bags. Fishermen's Co-operative Societies and middle class merchants can instal such small units which will work very profitable. Apart from whole fish, fish offal, beach dried fish or dry salted fish can also be processed into fish meal. Meals from star fish, cuttle fish, etc., can also be prepared. For processing fatty fish like oil sardine, a cooker with a press may have to be added to the unit, so that the excess oil present in the fish can be cooked and pressed out before converting the residue into meal.

Though the subject of fish meal has been dealt at length, fish oils and fish manures are no less important. In fact fish manures are one of the best organic manures for food crops as well as commercial crops. Fish oils are also likewise produced from the Fisheries Demonstration Units and refined at the Fisheries Technological Station, Kozhikode. They are in great demand in the leather industry. If only the fishing industry is able to make good quality fish oil, then import of lakhs of rupees worth of the same for the leather industry can be stopped. By technological modifications, some of the fish body oils can be made to substitute for 'sperm oil' of whales which is used in textile industry.



Sri M. Bhaktavatsalam going through some of the exhibits at the
uguration of the Fish Meal Plant. The Additional Director of Industries
Madras, and Superintendent, Fisheries Technological Station, Kozhikode,
the Minister.



Material being fed to the disintegrator

Semidried Prawns

Another product perfected at the Fisheries Technological Station is the semidried prawns. The production of semidried prawns is so very simple and needs no machinery or costly equipment that it should form a cottage industry. In fact the nature of the process is such that the fisherladies can prepare this product and thus supplement the income of the men. The prawns are simply boiled in weak brine, the shells removed by hand, the 'meat' immersed in saturated brine for 15 to 20 minutes and dried in the sun on raised platforms or 'thatties'. In prawn fishing areas like Pulicat, Porto Novo, Muthupet, Tranquebar, Pamban, etc., this method can be profitably adopted since it is so simple and costs very little. But it keeps for as long as two months and is as good as fresh prawns in value.

The Fisheries Technological Station is carrying out research on the preservation of fresh and cured fish. Preservation with 'chemical ices' and 'antibiotic ices' are being tried to extend the 'life' of fresh fish. Effective methods of insulating fish boxes have been studied and also methods of transporting iced fish. On cured fish more work has been done. The optimum ratio of salt to fish for curing various fishes during wet weather and dry weather has been worked out. The biological stability and keeping

(*Continued on page* 32)

FEB 1958

BOOKS ON FOOD AND AGRICULTURE

ɔations of the Madras Government listed below cover a variety of subjects on Food and ɦ as Food and Commercial Crops, Agricultural Research and Agronomy. Written by experts and English, Tamil, Malayalam and Kannada, these moderately-priced booklets will be particularly ons interested in scientific farming, market gardening and rural husbandry.

ve publication.	*Language.*	*Price.* RS.	A.	P.
es and Fodder	English ..	0	8	0
ts	Do. ..	0	7	0
rience of Plant Work in districts of tate.	Do. ..	0	4	0
Millets ..	Do. ..	0	3	0
uth Indian Oil-	Do. ..	0	3	0
n Pepper ..	Do. ..	0	3	0
.. .. ..	Do. ..	0	3	0
.. ..	Do. ..	0	3	0
ral Implements ls.	Do. ..	0	3	0
Pocket Guide on cial Fruits in ndia.	Do. ..	0	3	0
tato	Do. ..	0	3	0
e Cotton ..	Do. ..	0	3	0

Name of the publication.	*Language.*	*Price.* RS.	A.	P.
13 Vegetables	English ..	0	3	0
14 Chillies	Do. ..	0	3	0
15 Reclamation of Alkaline Soil.	Do. ..	0	3	0
16 Potatoes	Do. ..	0	3	0
17 Avenue Trees	Do. ..	0	5	0
18 Fruits	Do. ..	0	3	0
19 Sugarcane	Do. ..	0	3	0
20 Agricultural Implements and Tools.	Tamil ..	0	3	0
21 Guide Books on Vegetables.	Do. ..	0	2	0
22 Guide Book for Vegetables.	English ..	0	2	0
23 Millets	Tamil ..	0	2	0
24 Millets	Kannada ..	0	2	0
25 Sugarcane	Tamil ..	0	2	0
26 Sugarcane	Kannada ..	0	2	0
27 Tobacco	English ..	....		

publications below are under print and expected to be available for sale to public shortly :—

the publication.	*Language.*	*Price.* RS.	A.	P.
ant	Tamil ..	0	2	0
.. ..	Malayalam.	0	2	0
.. ..	Kannada ..	0	2	0
.. .. ..	Tamil ..	0	2	0
.. .. ..	Kannada ..	0	2	0
.. .. ..	Tamil ..	0	2	0
.. ..	Malayalam ..	0	2	0
.. .. ..	Kannada ..	0	2	0
.. ..	Tamil ..	0	1	6
.. ..	Malayalam ..	0	1	6
.. ..	Kannada ..	0	1	6
.. ..	Tamil ..	0	1	6

Name of the publication.	*Language.*	*Price.* RS.	A.	P.
13 Turmeric	Malayalam ..	0	1	6
14 Do.	Kannada ..	0	1	6
15 Tapioca	Tamil ..	0	1	6
16 Do.	Malayalam ..	0	1	6
17 Do.	Kannada ..	0	1	6
18 Sweet Potato	Tamil ..	0	1	6
19 Do.	Malayalam ..	0	1	6
20 Do.	Kannada ..	0	1	6
21 Rice	Tamil ..	0	2	0
22 Do.	Malayalam.	0	2	0
23 Do.	Kannada ..	0	2	0

be had from the office of the Director of Agriculture, Chepauk, Madras-5, or subordinate ultural Department.

d Postage extra.

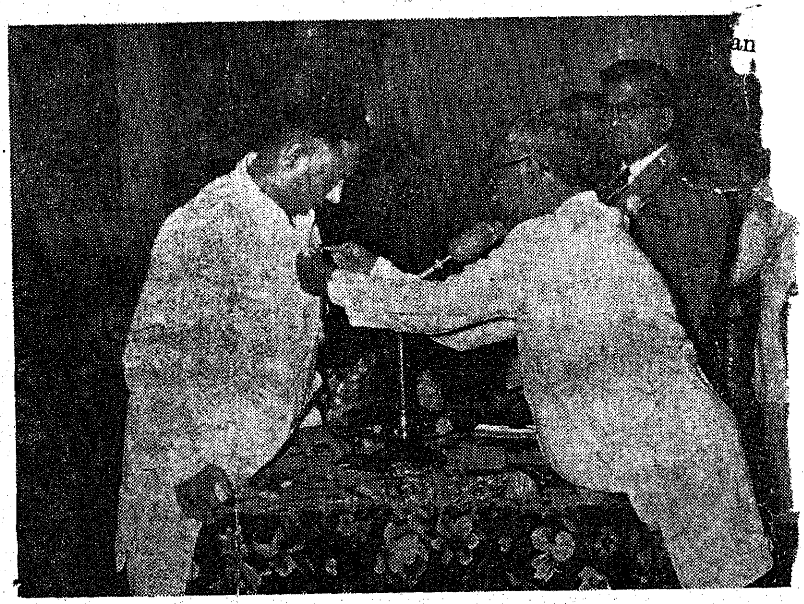
9 - FEB 1956
MADRAS

Sri M. V. Sethu Rao

Winner of the 1954–55 State Paddy Crop Competition Award

Sri M. V. Sethu Rao, a young, fair ompexioned, law graduate, hailing om a well-known agricultural family f Markayamkottai in Madurai disrict is the proud winner of the State 'addy Crop Competition Award for he year 1954–55. By adopting scienific methods of agriculture and by ntroducing improved strain and good nanuring, Sri Sethu Rao has been ble to raise 8,000 lb. of paddy per cre on his wet lands in Markayamottai, one of the best paddy producion centres in the Cumbum Valley. t is indeed remarkable that this indusrious farmer in spite of his having qualiied to be a lawyer prefers the plough o the black gown. By his own efforts e has demonstrated that the land which was yielding 5,500 lb. of paddy er acre on an average could be made o yield one and a half times that produce. He owns on the whole 40 acres of wet lands and 50 acres of dry lands in this area, but he personally cultivates only 20 acres of wet lands where he raises paddy and 20 acres of dry lands where he raises dry crops like chillies, ragi, cumbu, etc.

Sri Sethu Rao attributes the primary cause of his success to the high yielding qualities of 'Veedi Vadangan', a strain evolved by the Madras Agricultural Department and technically called A.S.D. 3 and the systematic care he has taken. Prior to the sowing of seeds in the nursery beds, primary seeds were treated with a bucket of salt water for eliminating seeds of poor quality. The nursery was prepared under the Japanese method and the land ploughed in thoroughly. Farm-yard manure mixed with broken soil at the rate of one cart for 2½ cents of land was applied. Adjacent beds were spaced one foot apart to facilitate drainage and interculture. Besides, a layer of compost, one-eighth of an ... thickness was spread over ... thin



Sri M. Bhaktavatsalam, Minister for Agriculture, presenting the :

After sowing, the seeds were covered with a thin layer of fine soil and watered. Ten days later, the beds were weeded once and after this, a mixture of cattle manure, and Amonium Sulphate at the rate of 300 lb. and 100 lb. respectively per acre were applied.

Transplantation

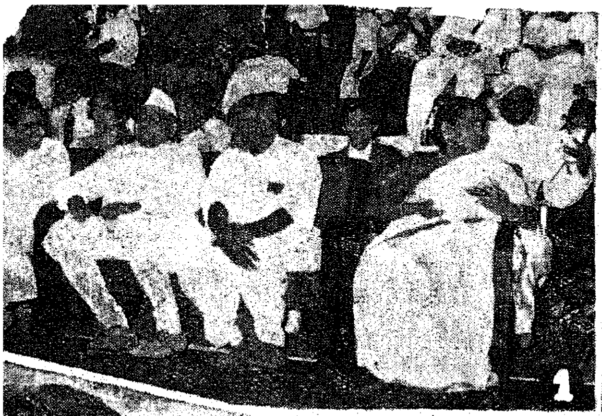
It was found that the seedlings thus raised on 10 cents of land were sufficient for transplantation over an acre. Before transplantation, green manure and farm-yard manure were applied and after ploughing in twice, a puddler was also used to mix them well. The seedlings were planted vertically at a distance of 10 inches and in rows which were again spaced 10 inches apart, the number of seedlings in each hole being two or three.

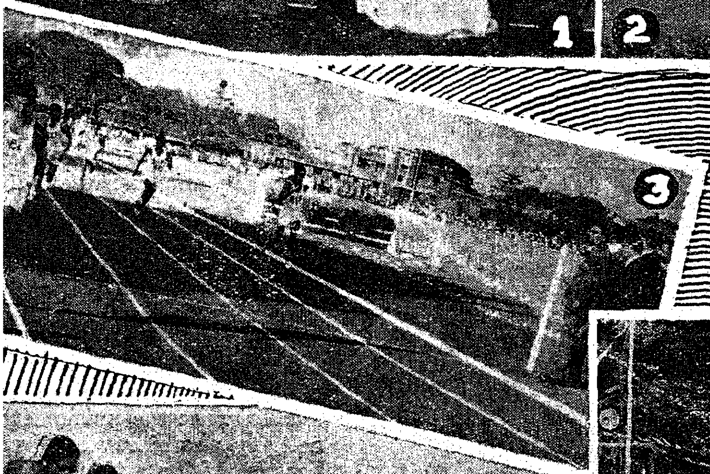
One month after cultivation and subsequently weedings were done twice at an interval of 15 days. Intercultivator was us[ed] once immedia-tely after weeding

The crop was ready for about 135 days and the obtained per acre was esti Rs. 866 and odd.

Sri Sethu Rao says the advantages of adopti Vadangan' (A.D.S. 3) is time of harvesting t shedding of corn and th considerable saving.

Crop competition introduced in 1950-51 a annual feature in the St In 1954-55, 10,248 agri entered the competiti been estimated that competition was f 4,914 in the pre were 2,443 entran the State—in Tan 1,224 in South Ka Ramanathapuram. won the State F district prize lb. I





POLICE SPORTS IN THE CITY

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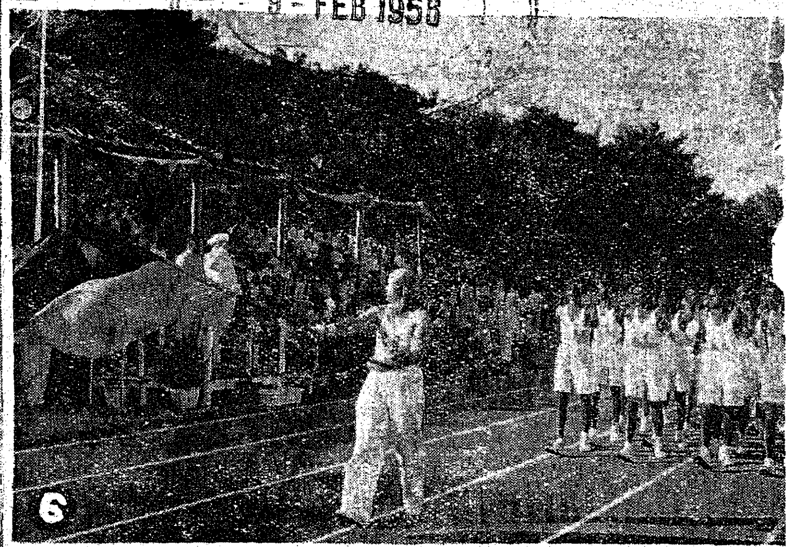
9 - FEB 1958



Police Sports—it is a day-off from onerous duties. The pleasanter aspects of these guardians of Law are shown off before an admiring audience. And you see even the ladies getting into the spirit of it.

MADRAS

Withering of Leaves of Plants in the Coastal Areas of North Malabar

By SRI V. P. NARAYANAN NAMBIAR,
Head of the Department of Physics, Pachaiyappas College, Madras.

My attention has been drawn to a report that appeared in the newspapers some months ago about a strange phenomenon reported to have been observed in some of the coastal belts of North Malabar. The report stated that following cyclonish weather and heavy gale in those areas in last May, it was noted that the leaves, bark and even the tiny twigs of certain trees and plants were found 'charred' on the sides facing the sea and directly exposed to it. Most of the affected leaves and twigs withered away subsequently leaving the parent plants in a state of awful disfigurement.

Specimen cuttings of the affected plants were made available to me almost immediately after occurrence for experimental study and investigation. A mere look at them was enough to convince one of the truth of the report about the destruction suffered by the plants. It was striking that the damage in all cases was confined to certain areas only—presumably the areas exposed to the sea. In the case of leaves in some cases only a portion thereof was found to have been affected the rest of it appearing surprisingly health and normal.

This mysterious phenomenon seems to have led to a lot of wild thinking and speculation among the local people and others in Malabar. Not knowing what this was due to, the report even went to the extent of suggesting whether the trial atomic explosions by the U.S.A., had anything to do with it and whether this was due to the radio activity unleashed as a result of these explosions.

While the conjecture about the incidence of radio activity seems far-fetched and improbable, it cannot also be lightly dismissed or brushed aside

The author with the specimens of withered leaves.

as a merely panickly speculation of a figment of fantastic imagination, expecially in view of the reports flashed in the press some time ago about the observance of radio active dust and clouds over Calcutta. If such clouds could make their ominous presence felt in the atmosphere over Calcutta, there was no reason why they could not extend their deadly journey a little further and invade the skies over Malabar. The possibility is there, though remote, and in my opinion the suspicion about radio activity had to be cleared.

Studies on the affected specimens received from North Malabar have been in progress as a side investigation in the laboratories of our college and as a result thereof certain definite conclusions have now emerged.

No Sign of Radio Activity

My first finding is that I find no grounds, on experimental evidence, to warrant the conclusion that the

affect was due to radio activi
diseased plants on investigatior
absolutely no signs of radio
or deposition on them of atomi
cles associated with it. The
gation of all radio active phenc
as students of science are a
now made easy by the mode
technique of studying their e
photographic emulsions. It
recalled that the phenomenon
activity was discovered by B
because of the action of the
on sensitized plates. The
particles impinging on t
leave a trail on it, the
and thickness of the tr
the identity and energy of
This discovery is due to
British Physicist Powell,
awarded the Nobel Prize fo
Ordinary photographic pla
however very efficient for
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extensively used for the
Cosmic rays, the plates beir
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and descend by parac
quently picked up
examination and stu
are also used to ol
about the distribution o
elements in plants and
and also to determine
exposure of a human bei

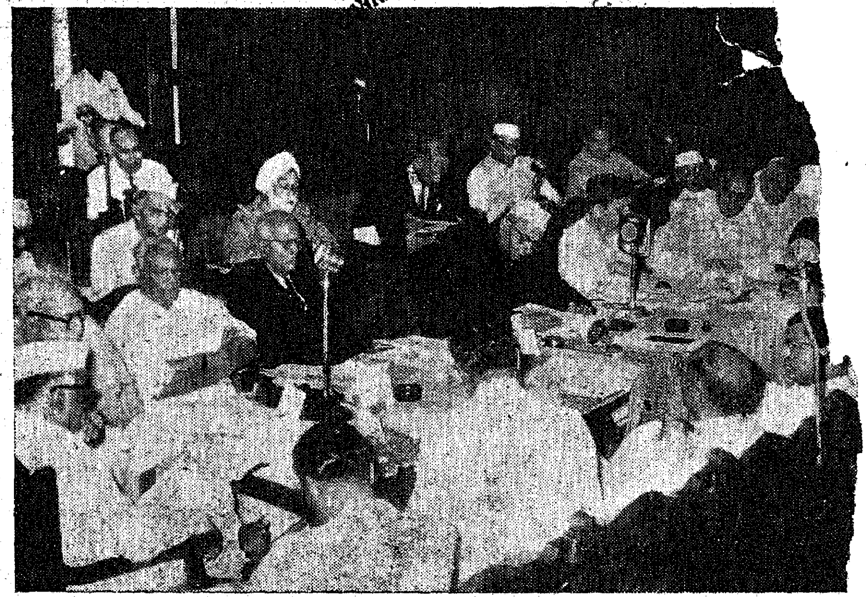
The Nuclear p
and do not keep
their short life the
ved extremely ca
me at the time t
taken on hand a
most sensitive
down from P

work. Examination of the specimens for radio activity using such plates yielded results which were purely negative, the plates being found on processing to be clear except for a few isolated cosmic ray tracks which are naturally to be expected in such experiments. It should be observed that these tracts are not visible to the naked eye and have to be carefully observed through a high power microscope.

These experiments, I believe, set at rest apprehensions about the presence of lingering radio activity released and let lose over this planet by the trial atomic explosions and the consequent radio active contamination of the atmosphere. The destruction observed in the present case does not seem to be due to radio-activity.

No Fungus Disease

The ruling out of radio activity made it imperative to investigate whether



The Official Language Commission taking evidence in the Secretariat. Photo the Chief Minister, the Finance Minister and Officials of the Government evidence on 9th January 1956.

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of the plants was due to
...e which could also
...ce the same lethal
...m and cause them to
y. This aspect of the
s been thoroughly investi-
e Botany Laboratory of the
of Madras—thanks to the
nced in it by the Director
ry. Here again the results
definitely found to be

...ray in Saline Water

destruction of the plants is
ably the effect of the continuous
y the high winds of minute
of saline water resulting in
osition of fine particles of salt
pores of the plants. Plant
ists are agreed that such
npregnation of salt in the pores
lants has the effect of destroy-
delicate tissues of the plants
them to die and wither away.
t that the destruction was
l after a thunderstorm accom-
by high winds and that the
f destruction were confined only
se directly exposed to the sea
ell with this theory.

ight also be of interest to mention
connexion that in the course
investigation of the problem, I
le to gather on reliable authority
is is not the first time that a
nenon of this type has been
d on the West Coast. There
een a few stray cases of such
tion in certain areas of the
core Coast abutting the sea.
s also been ascribed to the salt
f the enraged elements.

Better Books

Union Ministry of Education
far spent Rs. 32,383 on prize
tions for the best books for
rate adults. A sum of
kh has been set apart for the
mpetition.

umber of foreign tourists who
India in 1954 was 39,333 as
20,000 in 1951.

naraj, Chief Minister, entertained
rman and Members of the Official
Commission on 11th January
icture on the right shows the
nister with Sri B. G. Kher,
and others.

REPUBLIC DAY

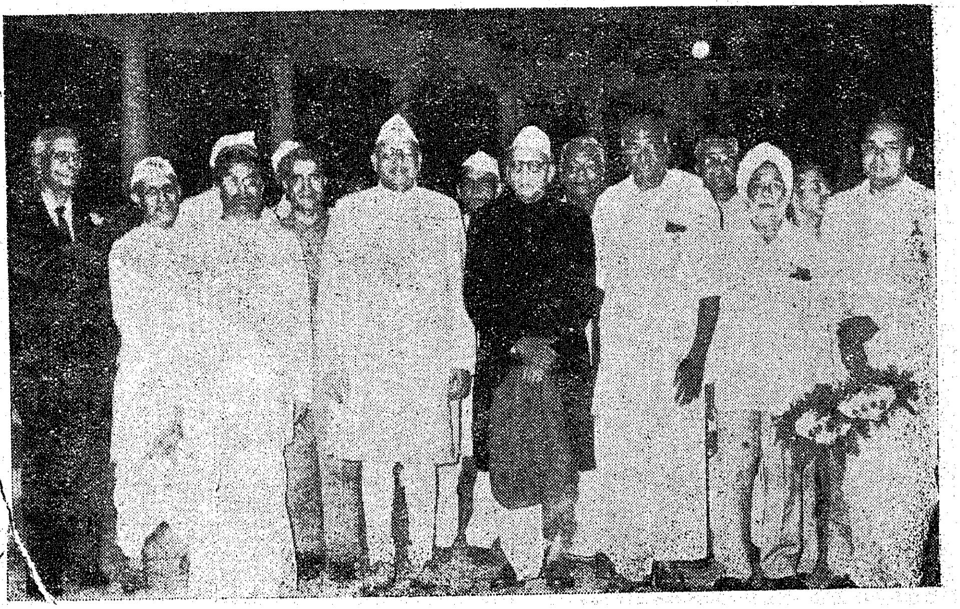
Republic Day was celebrated with great enthusiasm throughout the State. Large masses of people participated in the functions held in the City and in the mofussil centres. Along with the ceremonial parade held in the City, there was an Investiture function at which nine recepients—one of them posthumously—heroes of the Kashmir operations were decorated with the insignia of the Vir Chakra. They are: Flt. Lt. A. Srihari (posthumous), Sqdn. Leader (then Flt. Lt.) A.I.K. Suares, Sqdn. Leader (then Flt. Lt.) V.P. Hegde, Warrant Officer (then F/Sgt.) Arulappa Thomas, Jamedar (now Subedar) R. Thangavelu, Havildar Gopala Kurup, Lance Naik Perimban Isac, Gunner E. Joseph and Gunner Velumuthu.

Another novel feature this year was the participation of some of the leading firms in the City in the pageant in the evening. Along with the State Government, the All India Handloom Board and the Madras State Handloom Weavers Co-operative Society, the following firms also participated :—

Messrs. Simpson & Co., Ltd., Parry & Co., Nestles and T.V.S.

The prizes were awarded to the following in order of merit :—

Milo Tableau (Nestles—rolling shield and cup), Simpsons and All India Handloom Board.



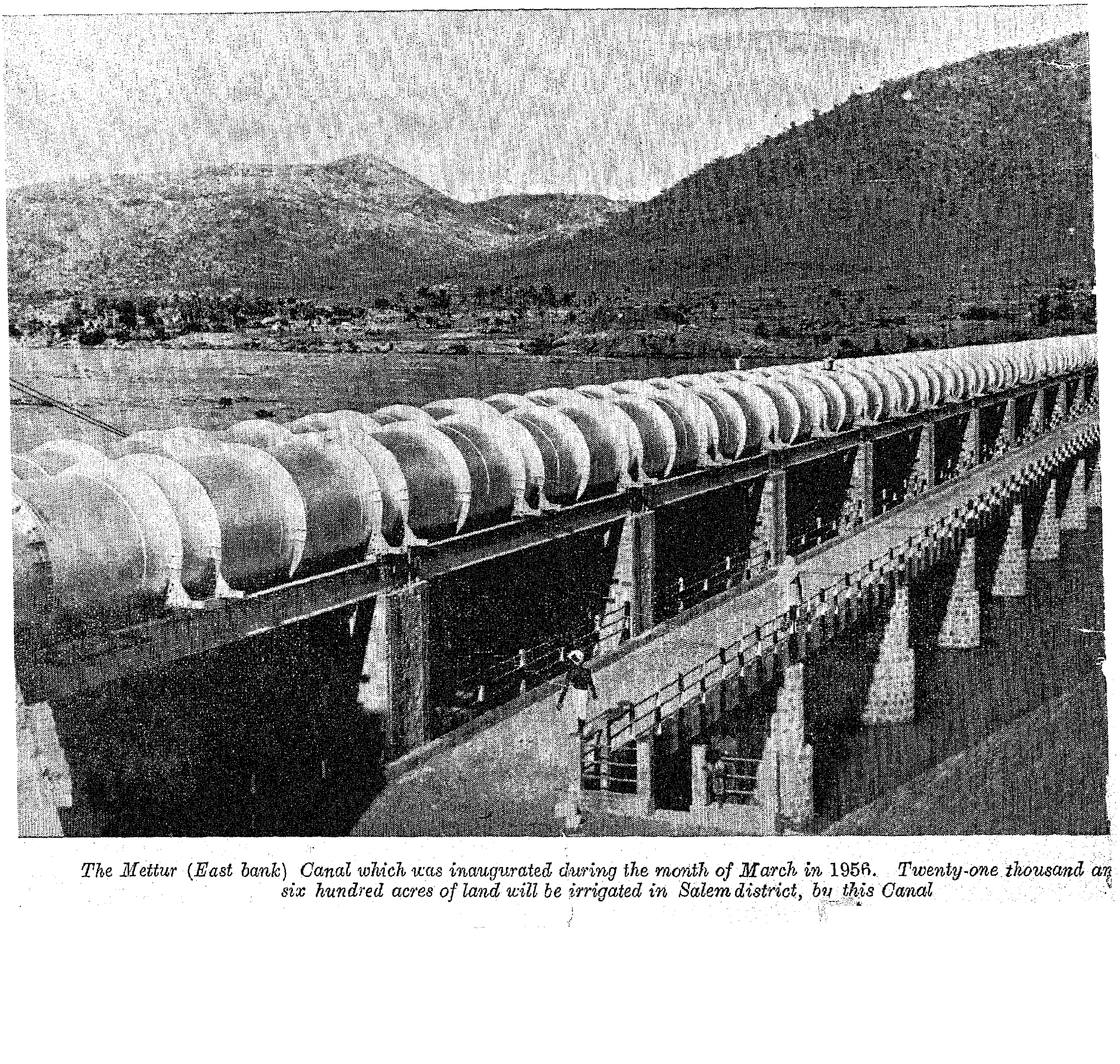
Onward march of the state in 195

The State of Madras marched ahead in the nation-building activities during 1956. The Rs. 36 crore Kundah Project which will greatly increase the power potential of the State was inaugurated during the year. The 70 crore Neiveli Lignite Project took a definite shape with the acceptance of the Government of India to take over the exploitation by themselves. The Mettur East Canal which will irrigate 21,600 acres in Salem district was opened in the month of March during the year.

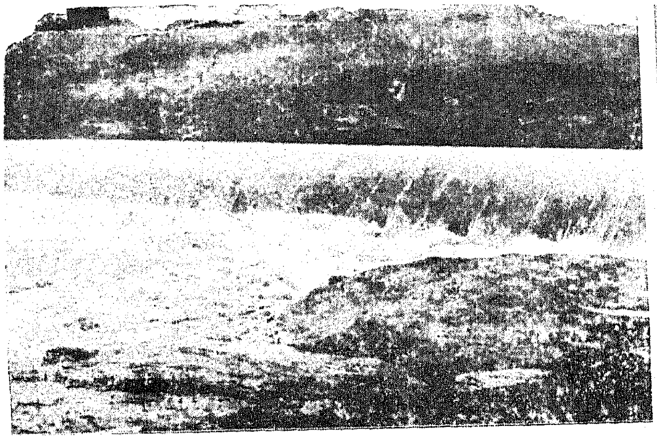
The Bhavani Project and Sathanur Project were completed during the year. The Manimuthar Scheme, and the Araniar Scheme neared completion.

More Development blocks under the N.E.S. were allotted to Madras State. Many village roads, Community buildings and residential quarters sprang up in the rural areas. The Polic interested themselves in rural w work apart from maintaining la order.

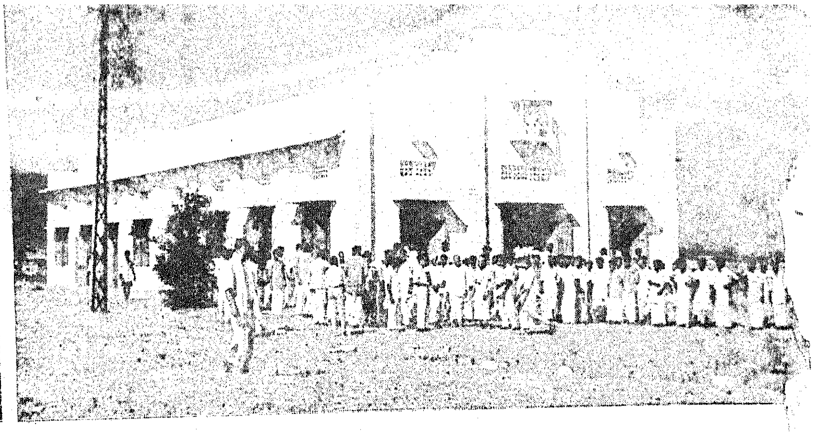
The people's co-operation in Community Development and N area increased to a large extent demands from all areas came inclusion of their area under Development Schemes.



The Mettur (East bank) Canal which was inaugurated during the month of March in 1956. Twenty-one thousand an six hundred acres of land will be irrigated in Salem district, by this Canal

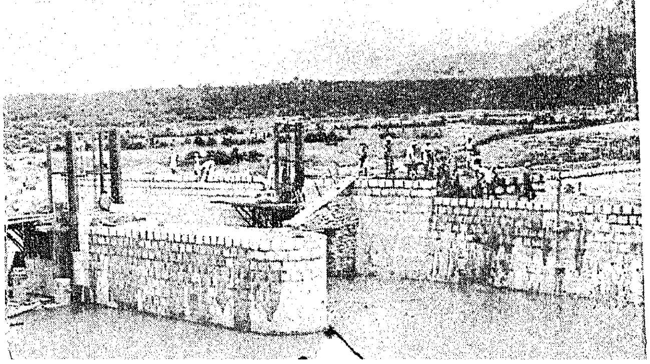


ınur Project Dam from which waters were for cultivation during 1956. This Project l large semi-desert tracks of North Arcot ıth Arcot districts into smiling fields of

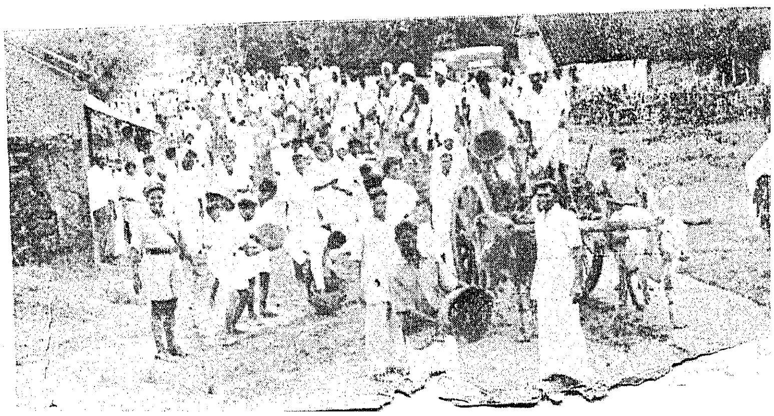


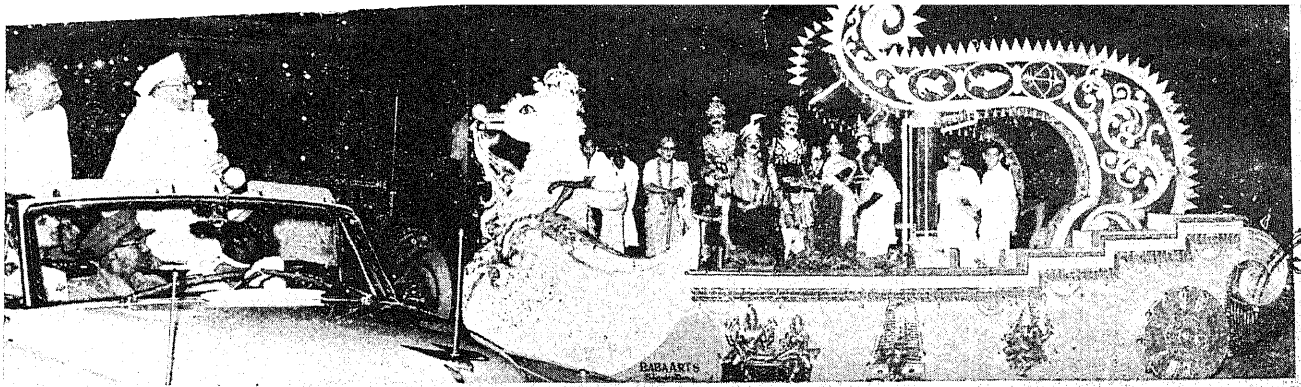
A community building constructed in the Lower Bhavani Project area by the co-operation of the people. A large number of such buildings are rising throughout the State, particularly in Development areas.

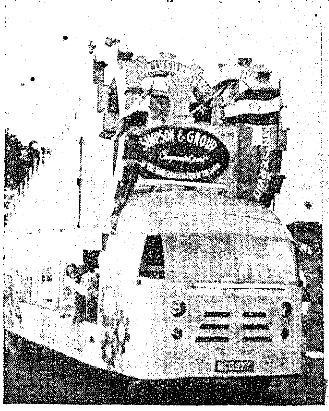
es one crore Arniyar Project in Chingleput district is nearing completion.

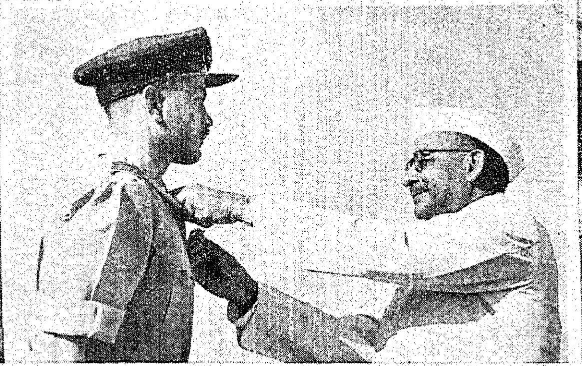


The Police Force, apart from maintaining law and order, have come forward to do constructive work in the villages. The laying of village roads is an important part of their programme.



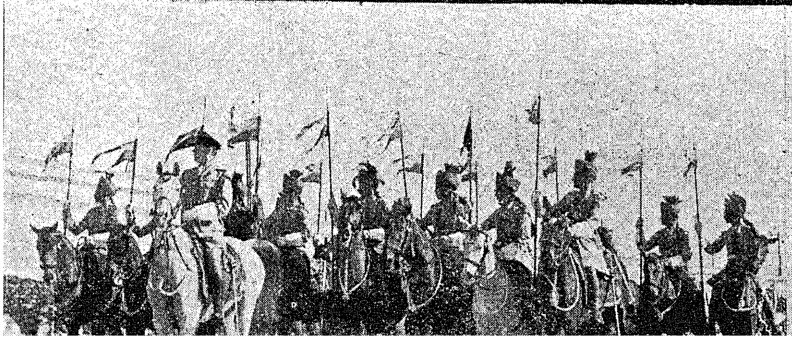


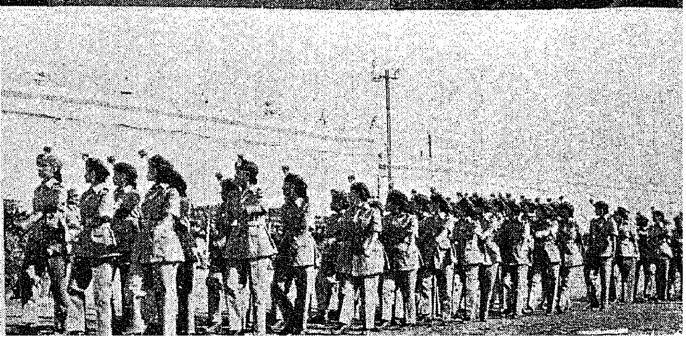




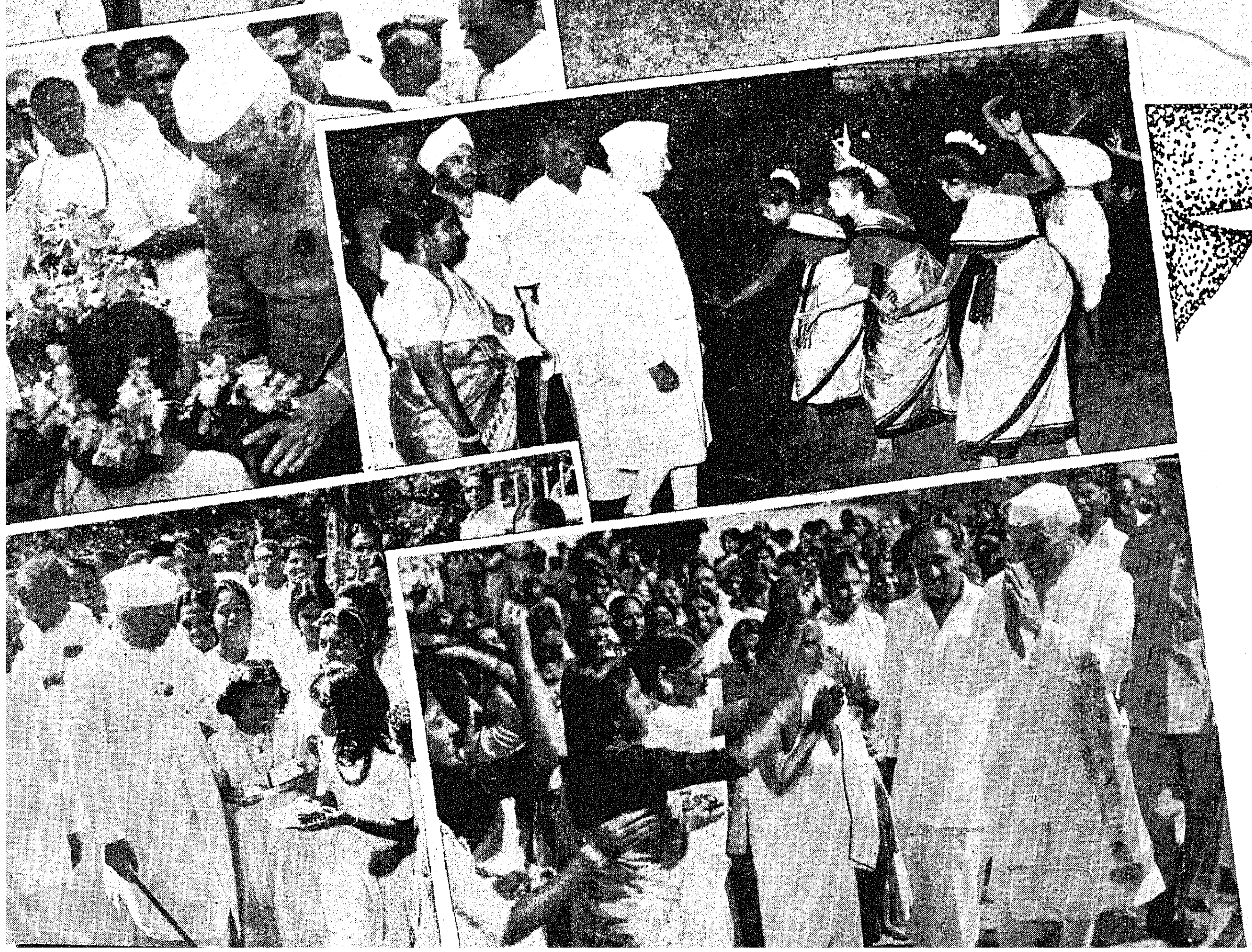
REPUBLIC DAY SCENES IN THE CITY

(See *facing page*)



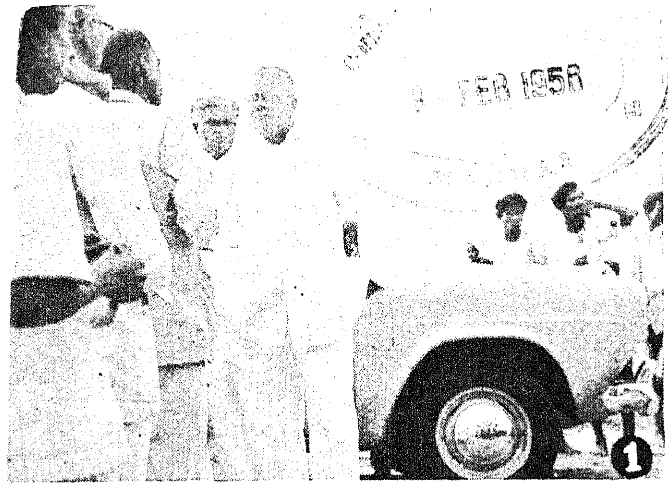


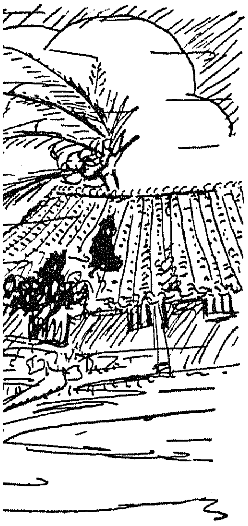
MADRAS



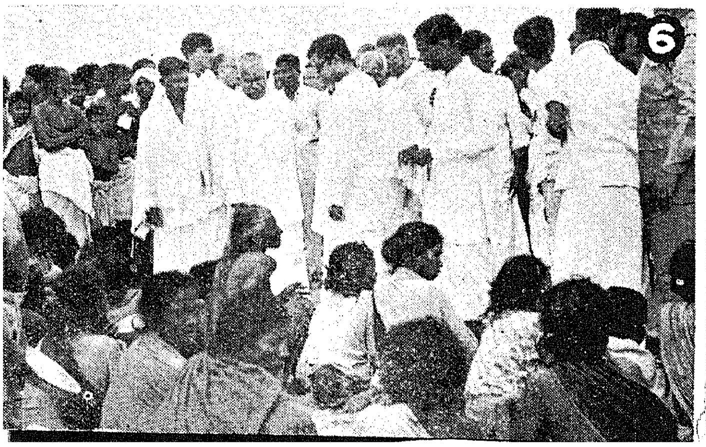
THE PRIME MINISTER'S VISIT

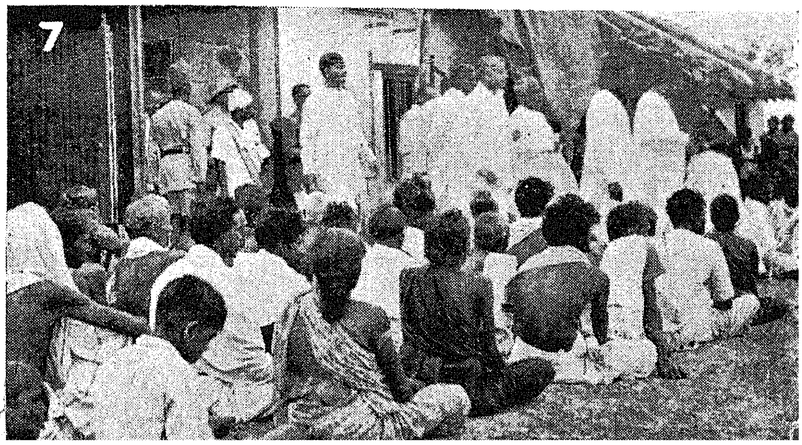
The Prime Minister was with us again. This time he met the people of Coimbatore, Malabar and South Kanara. He inspired them and they in turn inspired him, charging him with energy for greater service to the people of this land.

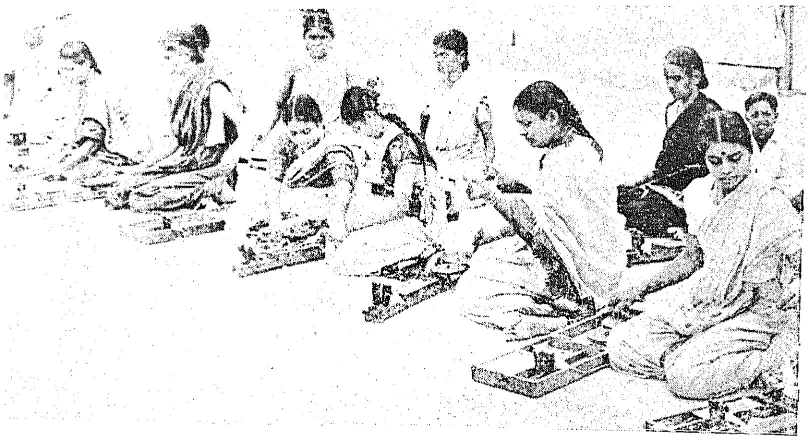




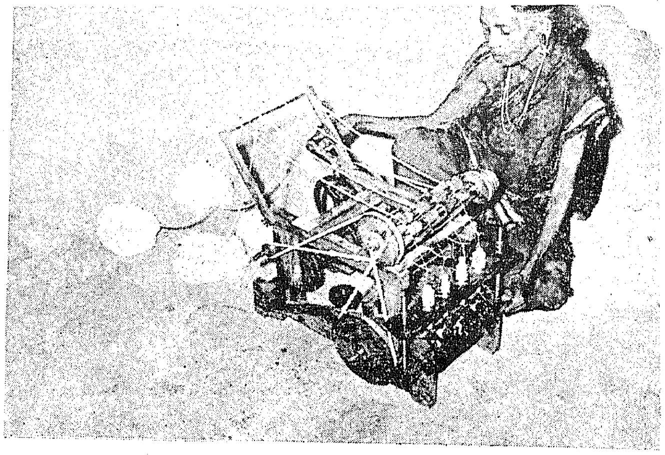
Sri T. T. Krishnamachari, Union Minister, Sri C. Subramaniam, Minister for Finance and Sri M. Bhaktavatsalam, Minister for Agriculture, visited the cyclone-affected areas. They met the victims, consoled and infused courage and organized relief.





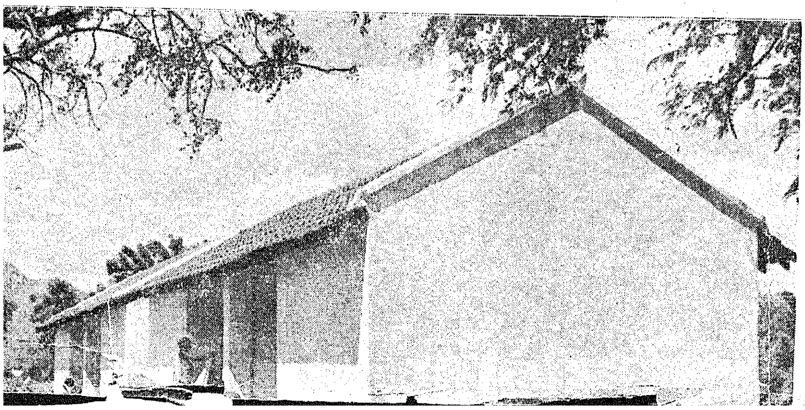


The decision to introduce one thousand Charkas for each development block has given fresh impetus to Kadhi programme. Spinning with the wheel is more popular with the women folk who supplement the income of the family.

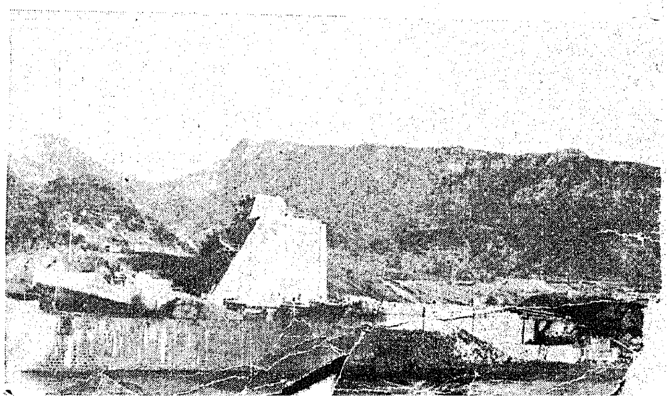


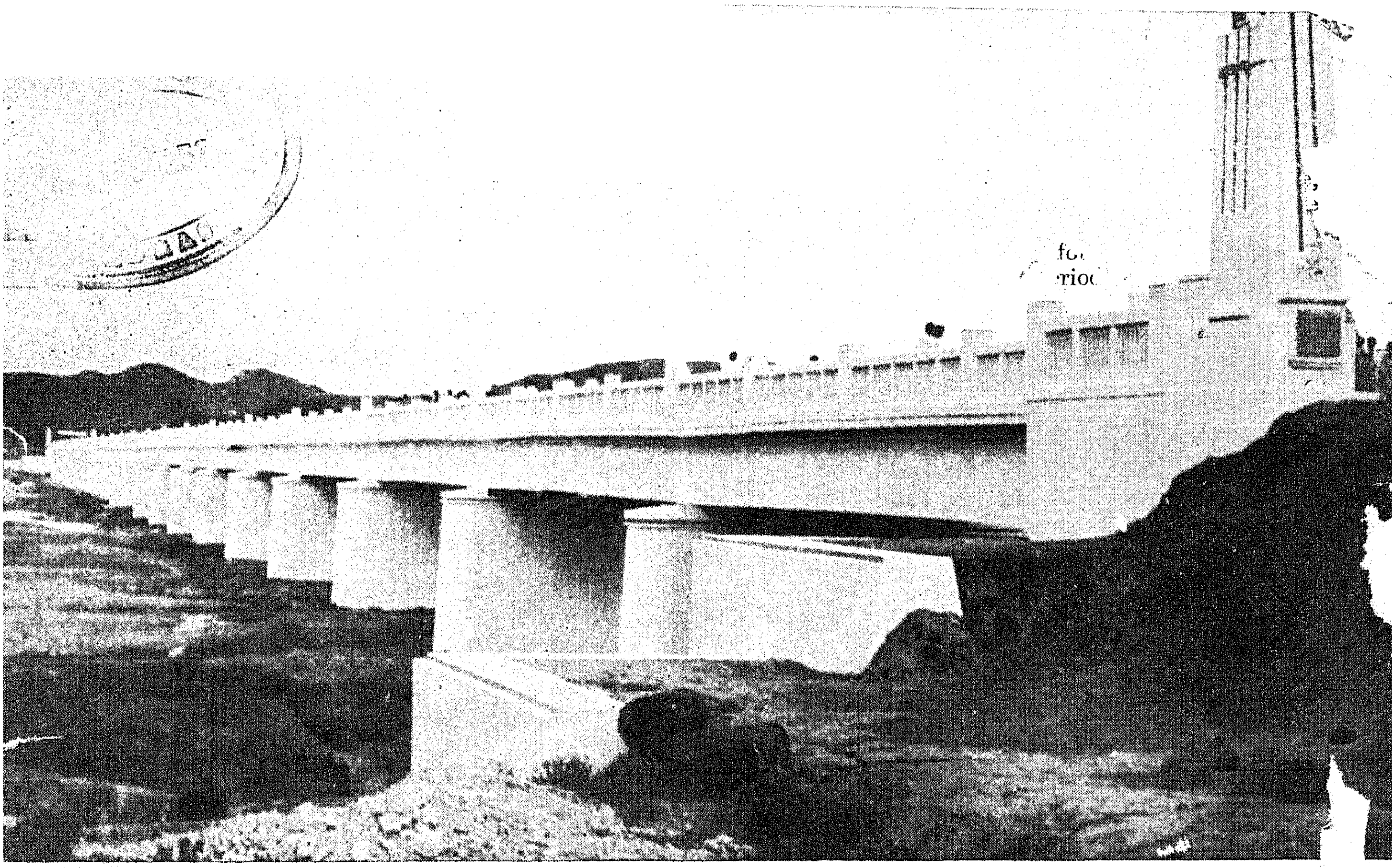
The Ambar Charka which has revolutioni hand spinning. This type of Charka has i the output of yarn four fold and made f spinning an economical proposition. The te the yarn is quite superior to the conv Charka yarn.

The brick and mortar houses were provided in Kalluppatti near Madurai for poor Harijans who once lived in 'pigeon holes'. This is one of the many places where 'pucca' houses have been provided to the less fortunately placed Harijans.

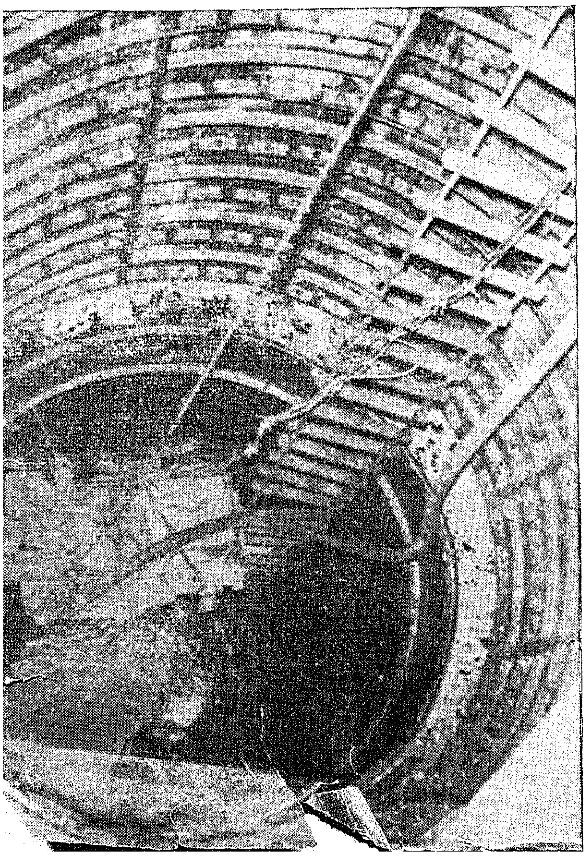


The Manimuthar Dam in Tirunelveli distri people of this area made history by vol to contribute more than one crore of rupee execution of this Dam.





The pre-stressed concrete bridge across Palar in Chingleput district largest of its kind in India



The lignite pit at Neiveli. The seventy crore lignite scheme will chc entire economy of Madras State

8 FEB 1955
MADRAS

Development of Cattle Wealth

'OPALAN, G.M.V.C., DIP., B.V.O.T. (Manchester), Director of Animal Husbandry, Madras.

·ing the period of World War II all the available food material was d to meet the needs of the defence considerably depleting the usual of grain, leading to acute in the country necessitating of food grain and imposition ing. After the attainment of ·nce, the partition of the coun- ·lace resulting in the separation ırplus areas and in the exodus umbers of displaced persons. l problem of the country ·cute. The shortage of food grave that the gulf had to be › quickly as possible. Food ld be produced in a season, ›roduction of animal food was ng range policy the results ›uld be felt only after a num- ·s. It was only natural that ive-Year Plan which was ini- ast this background, had its ›n the production of food cereals and that the produc- d of animal origin was not ·s consideration.

ogress of the First Plan

es included in the First Five- are therefore of the nature ion of the existing work with ions as were necessary to the cattle economy which l grievously from the war. ·eat depletion of cattle even ›ck because of army require- eef. It was necessary to remaining cattle from the disease and to raise the › stock.

ginning of the plan, there State (Composite State) ·y institutions and 119 nary dispensaries, six live- and a farm for salvaging The veterinary facilities and the pedigree seeds that ined from these few State scarcely meet the real demand. The Animal Husbandry Schemes, which were 24 in all, scored a provision of Rs. 56·28 lakhs under the Plan (1951–55). The administrative machinery of the department was strengthened to meet the situation by the appointment of two Deputy Directors of Animal Husbandry and four additional District Veterinary Officers. The schemes under the plan can be broadly classified under (1) Improvement of Livestock, (2) Veterinary Education and Research and (3) Disease Control.

Improvement of Livestock.—The livestock development schemes in the Plan were directed towards arrangements for the production and use of an adequate number of superior bulls of known parentage and productivity and the elimination of inferior and unapproved bulls.

During 1952–53 there were 8 Key Village Centres and 6 Key Farm Centres in private institutions. These Key Centres are compact areas where breeding is restricted by law only to pedigree bulls stationed by Government. After the partition of the State in 1953 there were five Key Village Centres and six Key Farm Centres in private institutions in the residuary State. Two Key Village Centres in each of the years 1953–54 and 1954-55 have also since been opened. Thus there are at present, in this State, nine Key Village Centres and six Key Farm Centres in private institutions. In the above centres a total of 140 breeding bulls are stationed. The work turned out by these centres is as follows :—

(1) Number of collections of semen	4,803
(2) Number of inseminations done	29,470
(3) Number of natural services performed by bulls	5,067
(4) Number of calves inspected	1,642
(5) Number of calves for which subsidy was paid	
(6) Number of inoculations conducted	
(7) Number of castrations performed	

The key villages are located only the breeding tracts of the State and order to improve the quality of anim in the urban areas four Artificial Ir mination Centres have been star and they are located at Madras (Madurai, Coimbatore and Ootacam towns. Twenty-nine breeding are maintained in these artificial ir mination centres. From 4,534 sen collections 41,183 inseminations w carried out in these artificial inse: nation centres. Of calves born by t method 4,607 were inspected. Calf r lies were held to popularise the artifi insemination technique and for spott prospective seed bulls.

The number of bulls at stud un the scheme for the distribution of n breeding stock at the end of 195 was 229 and the number of ser performed by the bulls under the sch during the first four years of the Plar 55,111, the number of calves ver being 16,228.

A steady supply of pedigree bulls to be made to assure the success o these schemes and more cattle bree farms were required. The deve ment of District Livestock Fa Pudukottai, Malabar and South Ka therefore came under the Plan. former Agriculture Farm at Pudukk was taken over by this dep in June 1951 with a stock of 10 most of which did not conform recogni ed breed characteristi the no -descripts were culled out disposed off and pedigree stock duced. The strength of the farm end of 1951–52 was 64 which rose at the close of 1954–55 and bul produced. During this period t

›duced 237,063 lb. of milk of which /3,839 lb. were sold to the public. The area under plough in this farm is ·28 acres and in this a total quantity of 74 lb. of fodder has been produced.

The District Livestock Farm, Malabar, was opened in 1950 on an area of 380 acres with a foundation stock of 48 animals of Murrah and Scindhi breeds. n 1951-52 a small stock of Dharwar buffaloes was introduced in the farm. The strength of the farm at the end of 54-55 was 131. This farm maintains lock of Malabar goats also from its ption. The number of this flock was 21 at the end of 1950-51 se to 53 at the end of 1954-55. During e first four years of the Plan 14 bulls d 22 farm bred bucks have been sued from this farm for breeding urposes. During this period 304,180 lb. milk were produced of which 251,060 were sold to the public. An area 130 acres has been brought under ure and cultivation and 2,998,947 lb. odder have been produced.

The District Livestock Farm, South anara, was opened in 1950-51 on an ea of 630 acres. The breeds maintained are Scindhi, Murrah, Dharwar and ir. Poultry is also maintained in the rm. The strength of livestock in the rm was 74 at the close of 1950-51 d 306 at the end of 1954-55. The ck of poultry was 140 at the end of 51-52 which rose to 723 at the end of 54-55. During this period, 1,008,621 of milk were produced of which 685 lb. were sold to the public and 70 lb. were converted into milk ucts. Twenty-three bulls have been d from this farm for stud purposes. espect of poultry, so far 784 birds 974 setting eggs have been issued breeding purposes and 3,847 eggs l 327 birds for table purposes.

In order to prevent useful cattle of the City of Madras from finding their way to slaughter houses when they go dry, a farm for the salvage of dry cows has been established in the Kambakkam forests and up to 1954-55, 2,327 cows have been salvaged. Five breeding bulls are maintained in the farm for the service of the cows admitted for salvage.

Sheep trade is an important industry and the breeders have to be educated in the several aspects of sheep husbandry. There were two sheep demonstration unitsat the beginning of 1951-52 and four additional centres were sanctioned during the Plan period. Of these, three units remain in the residuary State of Madras. These three units have conducted 770 demonstrations on the improved methods of washing, shearing and of grading of wool and on the benefits of deworming and deticking. As many as 1,135 shepherds have been trained and seventy-eight improved shears have been distributed. These units have participated in 141 exhibitions.

A flock of Mandya rams is maintained at the Hosur Cattle Farm, to make available Mandya rams for introduction among the hairy sheep of the State to improve their mutton qualities. The strength of the flock at the beginning of this year was 148. So far 21 rams and 20 ewes have been distributed from this flock for breeding purposes. This is apart from Bellary and Bikanir stock which are maintained for cross breeding experiments out of the normal budget. On account of the rapidity with which it can be multiplied at a time when protective food of animal origin is in great deficit, poultry holds the key for a balanced diet for the nation. The practice of keeping backyard poultry is universal and what is required is to upgrade the stock with high productive strains. Additional poultry seed at Cannanore and Koila were ad the ones running from normal bu Hosur and Madras and Orthana

The District Poultry Farm maintains Rhode Islan Leghorns. There the end of the During this p hatched at the farm of whi birds were sold for breeding p 36,138 eggs were produced of 9,892 eggs were sold for setti 4,813 eggs were sold for table p

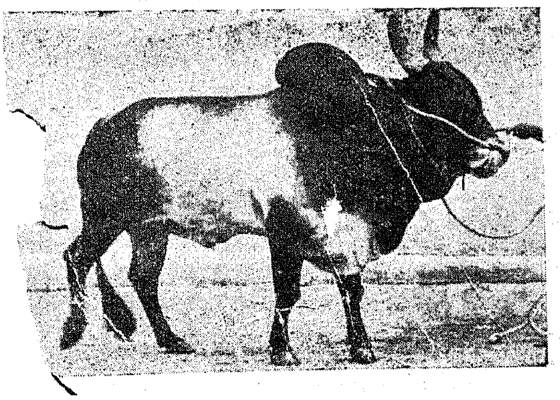
In all a total of 99,008 eggs a birds have been issued for purposes besides a large number and birds supplied for table pur

950 day-old chicks were p from United Kingdom with a introducing new blood in the poultry. These birds are n reared at the Poultry Researc Madras, so that they may get a ed to the new conditions.

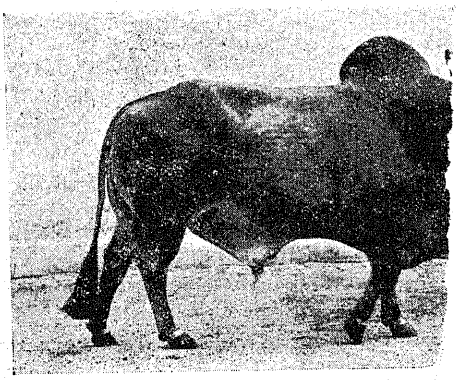
Veterinary education and r

Under the scheme for the personnel abroad five office department were got train specialised branches of vete animal husbandry matters. three officers are now serv residuary State of Madras.

Owing to the expansion vities of the department the an acute shortage of vete sonnel and the Second Fiv and the Community Develo grammes would demand the of a considerable number personnel of all categories. of a batch of veterinar would take a period of four order to meet the immedi



Kangayan bull (left) *and* *Sindhi bull* (right)



xtension centres is put into operation .d Plan. This scheme ıp on the recommenda- imal Husbandry Wing Council of Agricultural considerable number of eding bulls required for non-descript cattle in the tracts are expected to ilable from the Key Villages e. Extension centres will in compact areas each con- 2,000 cows of breedable age proved bulls will be located in area. The scheme will cover ts of breedable age and will ut very rapid livestock im- . In order to intensify breed- tions in the areas outside the ge plan and to effect general ent by the introduction of s, 300 breeding bulls will be and distributed during the at 60 per year. The bulls ted will reasonably cover) cows.

Village Scheme contemp- lopment of not only cattle of livestock. In order to development of poultry, its are proposed to be he Key Villages. In the 00 cockerels will be dis- of the six Key Village proposed to supply six 00 egg capacity for cockerels supplied will lternate years.

ndia Plan of Poultry 00 day-old chicks of ode Island Red and l be imported from red in some of the months of age and e rural areas of development. A regional farm under this scheme will be started at Coimbatore with 25 extension units. Each extension unit will get 100 birds and will be established in a National Extension Service or other development block. The scheme also contemplates supply of cocks and pullets in compact areas and training of breeders in poultry husbandry. The scheme, when implemented, is expected to result in the production of 310 lakhs of birds and 31,000 lakhs of eggs.

To encourage private individuals and agencies to take to poultry breeding, it is proposed to subsidise 50 private breeders during the Plan Period with a subsidy of Rs. 1,000 each for the purchase of foundation stock, construction of poultry houses, purchase of incubators, etc.

A cattle farm and a sheep farm are proposed to be started. The proposed farms, besides helping to overcome the difficulty in obtaining male stock for breeding, will serve as demonstration centres in scientific breeding. In the sheep farm, research will be undertaken in well-known breeds of woolly and mutton types of sheep as also cross breeding for production of wool, mutton and better quality of skin.

In the existing livestock farms, soil conservation measures will be introduced in about 3,000 acres to improve soil fertility and to increase fodder production to make the farms self-sufficient in fodder and grains. Intensive cultivation of fodder and grains in 325 acres in the Livestock Research Station, Hosur Cattle Farm will be undertaken under irrigated condition in order to develop mixed farming. Construction of residential and non-residential buildings in the existing livestock farms is proposed to be under taken at a cost of Rs. 5·81 lakhs.

Four Goshalas will be developed during the period of the plan. Only Goshalas which agree to maintain productive animals will be aided. Each such Goshala which has already animals of recognised breed will be helped by the donation of ten cows and one bull of good pedigreed breed.

During the Second Plan period it is proposed to render assistance to ten private cattle breeders to establish ten Goshalas at the rate of two per year. Small establishments owned by individuals who are cattle minded and taking keen interest in their welfare and improvement and who own a minimum of 25 acres of irrigable land and are willing to maintain 20 productive cows and set apart a suitable portion of their holdings for raising fodder crops to meet the full requirements of their cattle will be registered as Goshalas. Under the scheme, each Goshala will be given a subsidy of Rs. 5,000 towards repairing charges of building, sheds, purchase of equipments, etc., and a good pedigreed bull to improve the herd. A premium of Rs. 300 permanent advance towards the maintenance of the bull and a subsidy of Rs. 2,000 annually for the maintenance of the herd will also be granted. Besides these, the calves born in the Goshala are also eligible for a subsidy of Rs. 10 each per mensem for a period of two years from the time of weaning. The introduction of these schemes will greatly aid the mixed farming practices in the State.

During the period of the plan, one All State and 14 district shows for cattle, sheep and poultry will be conducted each year to create a competitive spirit among the livestock owners and aid the general improvement in the condition of livestock of the State.

Dairying and milk-supply

It is proposed to develope sewage farms at the outskirts of the Madras City and to colonise cattle in the neighbourhood by gradually evacuating the city milch cattle. In the first instance a colony will be established at Madhavaram to accommodate 4,000 milch cattle. The target for the plan period is the evacuating of 7,000 head of cattle. There will be provision in the cattle colonies for the care of dry stock, rearing of calves, veterinary aid, etc. The wholesome hygienic milk produced in the colony will be supplied to the city population.

In order to supplement the supply of fresh cows milk in the City and in order that the poorer sections of the people may get milk at cheaper rates, it is proposed to install a new plant at the Government Milk Factory, Madras, for the manufacture of toned milk. The rate of production will be 15,000 lb. per day during the first year of the plan and gradually rise to 50,000 lb. per day at the end of the plan. Many children who have not known even the taste of milk will now be enabled to have some quantity of this most essential protective food.

short course of eleven months' duration was introduced in the Madras Veterinary College during 1954, with 55 admissions (40 for the Madras State and 15 for the Andhra State) and this number has been increased further to 100 during 1955. The candidates of the first batch of the course who have passed out, have all been absorbed in the department.

Statistics plays a very important roll in research and planning. A statistical section was formed in the Animal Husbandry Department during 1954–55 under the charge of a gazetted officer, specially trained in statistics. The object of this is to analyse statistically all the problems connected with Animal Breeding, feeding, and disease control as well as collection and compilation of statistical data on all Animal Husbandry matters including research. Valuable breeding records containing wealth of information, have now been analysed in order to formulate a sound breeding policy. The progressive working of the farms in all their aspects has been fully evaluated. The incidence of diseases on regional and seasonal basis has been worked out to evolve a policy for advance vaccination to prevent the occurrence of the endemic diseases.

A scheme for investigation into the diseases of sheep and goats and to evolve suitable remedical measures has been in operation in the State. Much work has been done on the sheep diseases Entero-Toxaemia and sheep Dormatitis. The work of the scheme is generally regulated by a technical programme approved by the Indian Council of Agricultural Research.

For effective implementation of disease control schemes, biological products of proper quality in adequate quantities are required. Provision was therefore made to modernise the Institute of Veterinary Preventive Medicine, by the purchase of laboratory equipments. Most of the equipments have already been purchased and it can be said that this Institute is equipped now for current needs.

Disease control

The Royal Commission on Agriculture had recommended that there should be a Veterinary Assistant Surgeon for every 25,000 head of cattle but it would be sometime before this goal was reached. As a preliminary step provision was made in the scheme for the opening of a Veternaty Institution so that a veterinary dispensary and a touring billet will function in each of the taluks. So far 22 Veterinary Dispensaries and 21 Minor Veterinary Dispensaries have been sanctioned. To aid the timely and proper diagnosis of the infectious diseases the opening of 13 clinic laboratories at the headquarters veterinary hospitals and livestock farms has also been sanctioned. The disease control activities carried out by the department during this period are:—

1. Inoculations and vaccinations	4,492,805
2. Cases treated ..	1,225,285
3. Castrations performed	221,319

A scheme for the control and eradication of Brucellosis has been introduced in Coimbatore district as a Pilot measure. Under this scheme 354 Blood Sera and 140 Synovia have been tested and 5,952 Brucella Vaccinations have been conducted to the end of October 1955.

The Second Five-Year Plan

The Second Five-Year Plan in the Agricultural Sector has been drawn with emphasis on Animal Husbandry and ambitious plans to cover all aspects of development have been drawn up. The cattle population of the State is 15 millions against the All-India figure of 198 millions. The percapita consumption of milk in this State is only 4·18 ozs., as compared to States like East Punjab where the rate of consumption is 16·89 ozs., per capita. This is mainly due to the comparatively low production of milk in Madras State. The condition of cattle in this State is not quite satisfactory and the average yield per cow is 2 to 3 lb. This state of affairs necessitates an intensive campaign towards the livestock development for improving the quality of the animals and the quantity of milk production and demands concerted action on all matters pertaining to animal breeding, nutrition and disease control.

The scope of the Second Plan.—The Key Village Scheme, introduced during the first plan period, has paved the way for the further development of livestock of the State. The intensive programme that has been carried out in the breeding tracts of the State so far as proposed to be extended to the other areas of the State during the Second Plan period by starting additional Key Village Centres besides Ar
Centres in all the c
Twenty additional A
tion Centres with 120
six Key Villages for
proposed to be start
Second Five-Year Plan p
Key Village will cover
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into its fold an additiona
280,000 cows of breedable
production of better stock.
propagation of scientific k
the demand for more artifici
nation centres in the State is
the increase, and therefore t
the urban cattle 13 artificial
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have a centre in each of the t
cities of the State. The Ke
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duction in the areas selecte
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Veterinary education and research.

The foremost of the Biological Institutions in the Southern region is the Institute of Veterinary Preventive Medicine, Ranipet, where almost all the required biologicals are manufactured and certain amount of research is carried out. In spite of vast resources and ample facilities, due to the ever increasing demands of the nation, the Indian Veterinary Research Institute is not able, of late, to produce the country's needs in biological products.

There is an immediate need to develop the Institute of Veterinary Preventive Medicine, Ranipet, into a regional centre and to expand its productive capacity of biologicals and increase facilities for research. Therefore it is proposed to strengthen the Institute by appointing a Pathologist, a Bacteriologist and a Research Officer for Bucellosis with corresponding expansion of laboratories and building facilities. The Animal Nutrition and Animal Genetics Sections of the Madras Veterinary College which are of recent origin are proposed to be expanded into full-fledged Laboratories and training sections for the graduates of the Madras Veterinary College and for Research Scholars.

The expansion of the normal activities of the department, the execution of the schemes under the Community Development Programmes and the Five-Year Plans have all created an acute shortage of Veterinary personnel. To overcome this situation the number of admissions to the B.V.Sc. course which was increased from 80 to 100 during 1954–55 is proposed to be further increased to 120 during the year 1955–56. Since the duration of the course is 4 years and the need for the personnel is very acute, a shorter course of Veterinary training of two years' duration is proposed to be started at the District Livestock Farm, Orathanad, with 60 admissions per year. To meet the needs of the increased number of admissions, a three-storied building with lecture halls, laboratories and other facilities and an additional hostel are proposed to be constructed. In order to impart specialised knowledge to the students of the Madras Veterinary College in the subjects of (1) Therapeutics and Toxicology and (2) Gynæcology, special chairs are proposed to be created in those subjects.

Control of cattle diseases.

To reduce mortality and to combat contagious and other diseases which reduce the vitality and working efficiency of the animals it is necessary that this State should have adequate facilities for the protection of cattle from contagious diseases. Ninety-seven Veterinary Institutions will be opened during the Plan period besides the provision of permanent buildings to the existing Veterinary Institutions and their electrification. Fifty additional stockmen will be appointed for assisting the Veterinary Assistant Surgeons in their routine duties in the rural areas.

The State of Madras is now practically free from Rinderpest and it is proposed to divert attention towards the control and eradication of other contagious diseases of cattle like Anthrax, Hæmorrhagic Septicæmia, Black Quarter, Brucellosis, etc. Under this programme, mobile Veterinary units will be provided in each of the districts and advance preventive inoculations will be carried out in the endemic areas. In addition, the Plan provides for adequate measures for the control of Ecto-Parasites and Antifluke treatment. Though as already mentioned the State of Madras is free from Rinderpest the other States adjoining are not free from Rinderpest and the All-India Programme of Rinderpest Eradication is in operation in the States like Andhra. To meet the needs of this campaign in the Southern region, with regards to biologicals, it is proposed to increase the production of Rinderpest Freeze Dried Vaccine by 3,700,000 doses. The entire cost of this Vaccine Production Scheme will be borne by the Government of India.

Animal Husbandry under the Community Development Programmes.

The objective of the Community Development Programmes is to change the outlook of the rural population, arouse enthusiasm in them for new knowledge and new ways of life and fill them with ambition and the will to live a better life. The fulfilment of this objective will require :

(*a*) Extermination of the greatest evil of property, which is mainly due to underproduction in Agriculture and unemployment and under-employment.

(*b*) Extermination of disease and ignorance by providing health, education and other social welfare services.

The aim of the Communit
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and they are indispensable to
to maintain good health. Th
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March 1955, 116 Breeding and
Insemination Centres were st

There are at present 38
Extension Service blocks, fou
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munity Projects functioning
State. During the period en
March 1955, 306 pedigree
3,693 pedigree birds have bee
Thirty-two thousand eight h
five scrub bulls have bee
185,470 animals have beer
456,488 animals have b
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Five-Year Plan it i
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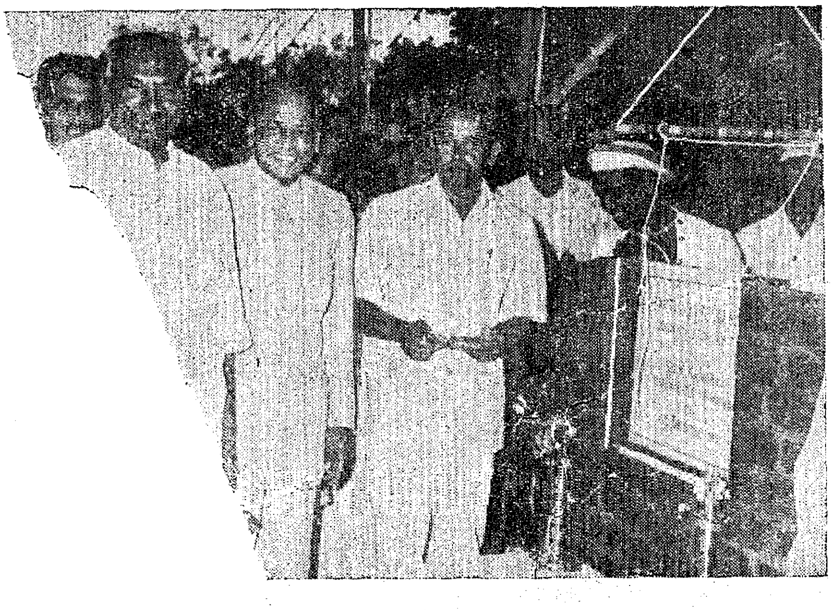
es expected to be produced . This will give a per adult y of 15·5 ozs. of cereals and pulses as compared to 14 ozs. and 3 ozs. of pulses recommby the Nutrition Advisory e for a balanced diet. The e of consumption of cereals ted by the fact that the .ded levels of protective foods ghee, meat, eggs, etc., will not ned by 1960–61. Increased has to be paid to the deveof subsidiary and protective animal origin to ensure a diet. The per adult availamilk in India is at present ozs. as against 10 ozs. recomby the Nutrition Advisory ee. A substantial increase in ly position of food of animal possible only with all-round ent of cattle-breeding, rearing, nd disease control. A start s been made in this direction 'irst Five-year Plan will be l during the Second Plan The effect of these schemes bring about an improvement in the several aspects d above, but the supply te quantities of milk and d of animal origin to well-balanced diet of both d plant origins cannot be nless this is carefully planned e Third Plan period, partiith reference to the optimum utilisation of land. It has been estimated that about 15 per cent of arable land should be utilised for the production of cattle fodder. This would mean that about a sixth of the total Agricultural land will have to be assigned by rotation for the production of cattle fodder. A mixed farming practice should become the normal Agricultural pattern. A beginning is proposed particularly in the Key Village areas in the Second Plan. It should become an established general practice during the Third Plan period.

Members of the Auxiliary Cadet Corps at a pleasant task in one of the slum areas of the City. A Social Service Camp was recently held in the Queen Mary's College.



Stadium was laid by Sri K. Kamaraj, Chief Minister, idan on 21st December 1955.

Growth

Four hundred and fifty-two health centres have been opened at various places under the Community Development Programme.

The Government of India have provided Rs. 5 crores as grants and Rs. 2·5 crores as loans for the All-India Khadi and Village Industries Board for the development of khadi and village industries during 1955–56.

There are at present 31 Primary Schools, two Middle Schools and one High School in the Andaman and Nicobar Islands.

From January to October 31 this year, 6,719,904 persons have been vaccinated with B.C.G.

A sum of Rs. 14,36,478 was realised from Central Government Employees towards the Contributory Health Service Scheme and a sum of Rs. 28,77,379, annas 6 and pies 8 was spent up to the end of September this year by Government on the staff and equipment since the inception of the scheme.

has done a lot of good in preserving this beautiful species for the posterity.

These squirrels are chiefly arboreal and always keep to the summits of trees and seldom come aground. They wear brilliant coats and possess bushy tails about 2 feet long. They leap from tree to tree and some time their leap covers a gap of about 20 feet between two trees. They move in pairs being monogamous. They are not so disastrous and do not appear to breed as fast as their counterparts Grey Squirrels in England who pillage the crops extensively and cause enormous damage to young seedlings with the result the Forestry Commisioners had to set up a Committee to study the Grey Squirrel problem. But the food of the Malabar squirrel consists of fruits and nuts, bark, lumps of gum, insects and larvæ which shelter beneath the barks.

A Poetic Flock

I reached the Rest House at 2-30 p.m. Raman Nair took leave of me to meet me at about 3-30 p.m. with Malathi (name of elephant) near Theppakadu to go on an elephant back and see bison herds. Soon after his departure I settled down in the open to have my lunch enjoying the free lunch time music—the song of birds. Balan the Bungalow Watcher-cum-cook was thoughtful enough to make some dishes for me by way of supplementing my pack lunch. Many of the birds in the Sanctuary appear to congregate in the bungalow surroundings lending charm and colour to the Sanctuary. There was a good collection of resident birds and Winter visitors at this spot and I was happy to see them mixing and flying together. It looked to me that the resident birds were taking their guests round and entertaining them, keeping with the traditions of Indian hospitality. The reasons are not far to seek. The birds like settling near human habitations to get easy supplies of water and scraps of food and grain. The Malabar whistling Thrush popularly known as the Whistling School Boy, the black-headed Golden Oriole, The Gorgeous Nilgiri Wood Pigeon, The Paradise Fly-catcher with its silvery white ribbon-like tail, Jerdons Chloropsis, the Bul Bul and the Jungle Babbler made their appearance while the steel blue swallows were capturing winged insects by making short aerial sallies.

One Body, One Will.

The Black Red Start had hardly perched on the rain gauge fence opposite to me when it vanished in a split second. May be she had just arrived from the Himalayan region or Kashmir and gone for refuelling. Parakeets in Emerald Green flitted from tree to tree. There is one thing that always astounds me with regard to the flight of Parakeets. It is also the case with other birds such as Blackbirds, Mynas, wild duck and pigeons that move in large communities. When they are on the alert a flock of Parakeets will all take flight simultaneously as if there was but one bird instead of hundreds. The same impulse seizes every bird at the same time though they are perched on different branches of the tree and well spread out. A flock of birds in flight is one body and one will. It will rise or circle or swoop with a precision which is most astonishing.

That Fierce Pair

At 3-30 p.m. I arrived at Theppakadu in jeep picking up Raman Nair on the way and found Maras (the Mahout) who was waiting for me with Malathi, in a terrific excited mood. He exclaimed that a few minutes before our arrival he saw a huge tiger and a tigress crossing the road from the opposite side and that I had just missed a good sight. Gudalur–Mysore Road passes through this Sanctuary. Immediately I mounted my moving perch and directed Maras to take me in the direction of the tigers. Raman Nair and Madappa sat beside me. Maras steered the elephant very skilfully through the thick jungle, cutting the overhanging branches with a sharp billhook he had. We crossed several nullahs and streams and the journey was becoming most uncomfortable. To the unaccustomed elephant-riding over rough country is not a wholly pleasurable experience. Malathi's topheavy shape and relatively thin legs seemed especially adopted to jungle marching and climbing. She seemed to be in perfect harmony with the surroundings.

The mahout, short of stature and thin built, looked like a dragon fly perching on a bull's horn. As we were rambling, I saw a solitary doe fleeing frightfully. It is rather strange to see a single spotted deer running in this fashion as this species is generally gregarious. The only explana[...] perhaps the tiger and the tigre[...] the mahout saw a little while [...] caused a stir and disturbed t[...] or alternately wild dogs had s[...] it. This doe after running up a[...] soon vanished and we contin[...] ramble. We had not gone f[...] we came across a small herd o[...] deer consisting of one stag a[...] hinds. This stag was in har[...] unlike the one I saw in velvet n[...] bungalow. It appeared to me [...] the solitary doe must have sep[...] from this herd which also beha[...] an unusual manner. My su[...] that the tigers must have cause[...] fright was further strengthened. [...] fresh pug marks of tiger in se[...] places and these were quite clea[...] the wet forest floor. In one o[...] nullahs I saw the foot-prints of a [...] and deer side by side. For an [...] after seeing this herd the journ[...] was monotonous, except for a varie[...] of landscape if one has an eye [...] topography, as nothing could [...] sighted.

Unperturbed

The monotony was soon broken [...] the sight of a bison herd and M[...] started wheeling the elephant tow[...] this herd. As we were approach[...] the herd it was running away from [...] We soon realised that we were march[...] towards the herd in the direction [...] the wind and the bisons scenting [...] were running away. Maras chang[...] this direction and went by a circu[...] tous route against the wind. Now w[...] could reach the herd within abo[...] 20 feet and the bisons looked absolute[...] unperturbed. The fact of the mat[...] is that they are not able to see [...] persons sitting on the elephant vie[...] from the low level on which t[...] eyes are located. Further bis[...] allow elephants to mix with them free[...] as these two are good associates.

Bisons relish greatly tender bamb[...] shoots and elephants help them b[...] bringing down the culms. In this her[...] I counted 24 adults and 3 young one[...] I was amazed at the great diversit[...] of colour among the bisons. Th[...] young bulls and cows are rufous, th[...] adults dark brown and the old bul[...] jet black. I saw a huge bull in th[...] herd with a gigantic head, the lik[...] of which I had never seen before. Th[...] bison should easily weigh not less tha[...] 2,000 to 2,500 lb. This massive bis[...]

(Continued on page 27)

Community Projects Bring New Life to South Sea Islanders

'eam of seven Fijian Specialists rought new life to the tiny island uriki. They made a five months' of the island's possibilities, itted their findings and then ned to lead the people to carry for themselves the developments ested. The job was accomplished months, a pilot project for further h Pacific Development Plans.

More than 75 per cent of the money d nearly all the labour were provided luntarily by the islanders themlves, and nearly £1,000 is left in their ınd for future projects.

Moturiki is a small island, of less than re square miles. The population the start of the scheme was 588 sons, living in nine villages of which largest held less than 100 people. st of the country was covered by ls and low fern, though there is n timber in some of the southern leys. The people were not progrese, having a long tradition of subection to a larger, neighbouring island. hey were mostly occupied with subsisnce farming on the shifting principle hich afforded them adequate food th comparatively little effort, but general standards of cleanliness, using and health were poor. Their y cash crop was copra, less than tons being sold annually.

Preliminary Survey

The survey team found the land iitable for extended agriculture, and ıat there were nearby markets for ash crops. Transport appeared to e a major problem. Agricultural nprovements suggested included the ıinning and cleaning of coconut planations, provision of proper drying and orage facilities for the copra, rehabiliation of pine apple growing and the ırther planting of yaqona, from which 'iji ceremonial liquor is made. The orestry programme included the proision of a plant nursery, afforestation f water catchment areas and eroded slopes, the thinning and cutting of mangroves to be sold as firewood in other islands.

The special programme, on which the first start was made, provided for a clinic, a maternity home, the improvement of sanitary arrangements, midday milk for school children and the encouragement of women's crafts.

Village amalgamation, an obviously desirable project was put off because at no time were there more than 143 adult males available for work. The housing problem was met by training a home repair team to tour the island.

Team of Specialists

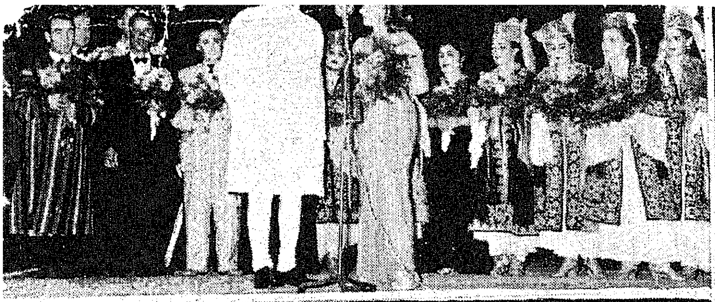
The team who set out to turn this ambitious programme into fact consisted of an Organizing Teacher as leader, an Agricultural Field Assistant, an Assistant Filariasis Inspector, a Forest Guard, a Carpentry Instructor, an Assistant Nurse and later on, a young teacher specially trained in home crafts. They worked through a committee elected by ballot, one member from each village. Five hundred pounds were provided by the South Pacific Commission and the islanders agreed to subscribe half of the proceeds of their copra industry each year and to subscribe from the results of other cash sales as they developed. Some £2,200 were accumulated in their Development Fund during the period of work and nearly £1,000 is still left for further work.

The clinic and maternity homes were the first projects to be completed and 15 babies were born in the clinic during the first 10 months. In addition 3,000 out-patient cases received attention.

Indigenous Leadership

Agricultural development quickly showed results. The proper marketing

Sri N. E. S. Raghavachari, I.C.S., Director of Community Projects is communicating something funny to this tiny member of the Service Home. But the little fellow doesn't seem to be taken in by the joke.



Uzbek Cultural Delegation in the City

They brought the message of art and culture. They laughed. They danced. They sang. And they proved that in basic fundamentals men and women everywhere are alike.

Registered No. M-4767.

It's not how much but WHAT he eats that matters

A heaped plateful of food is no indication of healthy childhood. Your child may eat plenty, yet show visible symptoms of bad nutrition — such as stunted growth, thin appearance, bad teeth, and susceptibility to cold. He lacks vitamins in his food.

Put him on ADAMIN (Concentrated)—nature's own source of vitamins A & D and watch his growth—rounder cheeks, healthier appearance and resistance to disease.

M. G. B. SHARK LIVER OIL is a low cost, valuable fat food.

Adamin — SHARK LIVER OIL

Standardised to

Liquid	Capsules
Vit. A. 12,000 I. U. /Gm	6000 I. U. each
Vit. D. 1000 I. U. /Gm	1000 I. U. each

Standardised to
Vitamin A. 1,500 I.U.
Vitamin D. 100 I.U.
per gramme

GOVERNMENT OIL FACTORY,
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